



STIC Search Report

EIC 1700

STIC Database Tracking Number: 101056

TO: Eisa Elhilo
Location: CP3 9D34
Art Unit : 1751
August 14, 2003

Case Serial Number: 10/052321

From: Kathleen Fuller
Location: EIC 1700
CP3/4 3D62
Phone: 308-4290

Kathleen.Fuller@uspto.gov

Search Notes



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Kathleen Fuller, EIC 1700 Team Leader
308-4290, CP3/4-3D62

Voluntary Results Feedback Form

- I am an examiner in Workgroup: Example: 1713
➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

- Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC1700 CP3/4 3D62



=> file reg

FILE 'REGISTRY' ENTERED AT 11:24:34 ON 14 AUG 2003
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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES: 13 AUG 2003 HIGHEST RN 566135-25-9
DICTIONARY FILE UPDATES: 13 AUG 2003 HIGHEST RN 566135-25-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> file hcaplus

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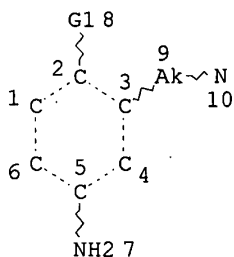
FILE COVERS 1907 - 14 Aug 2003 VOL 139 ISS 7
FILE LAST UPDATED: 13 Aug 2003 (20030813/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> d que

L13	SCR 1568
L18	STR

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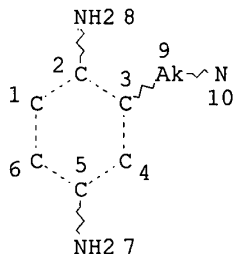


623 structures from query

VAR G1=OH/NH2
 NODE ATTRIBUTES:
 NSPEC IS RC AT 10
 CONNECT IS E2 RC AT 9
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC 1
 NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
 L21 623 SEA FILE=REGISTRY SSS FUL L18 AND L13
 L22 STR



305 structures from subset

NODE ATTRIBUTES:
 NSPEC IS RC AT 10
 CONNECT IS E2 RC AT 9
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC 1
 NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
 L24 305 SEA FILE=REGISTRY SUB=L21 SSS FUL L22
 L25 87 SEA FILE=HCAPLUS ABB=ON L24
 L26 32 SEA FILE=HCAPLUS ABB=ON L25 AND (HAIR OR KERAT?)

=> sel hit rn l26 1-32
 E1 THROUGH E243 ASSIGNED

32 CA references

=> d 126 all fhitrstr 1-32

L26 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:300263 HCAPLUS
 DN 138:308942
 TI Substituted 2-aminoalkyl-1,4-diaminobenzene compounds and oxidation dye precursor compositions containing them
 IN Chassot, Laurent; Braun, Hans-Juergen
 PA Switz.
 SO U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S. Ser. No. 692,971.
 CODEN: USXXCO
 DT Patent
 LA English
 IC ICM A61K007-13
 NCL 008405000; 008406000; 008415000
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 25

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003070241	A1	20030417	US 2002-146264	20020515
	US 6436152	B1	20020820	US 2000-692971	20001020
	US 2002189033	A1	20021219	US 2002-124149	20020417
PRAI	DE 1999-19961272	A	19991218		
	US 2000-692971	A2	20001020		
OS	MARPAT 138:308942				
AB	The oxidn. hair dye precursor compn., in the form of a soln., cream, emulsion or gel, contains (i) 0.005-20.0% by wt. of at least one coupler compd., and (ii) 0.005-20.0% by wt. of at least one developer compd., that includes at least one substituted 2-aminoalkyl-1,4-diaminobenzene compd. The compn. further comprises at least one direct dye. Prepn. of substituted 2-aminoalkyl-1,4-diaminobenzene compds. is also described. For example, 1,4-diamino-2-(1-butylaminoethyl)benzene hydrochloride developer was prepd. and formulated into an oxidn. hair dye precursor compn. with couplers 1,3-dihydroxybenzene, 1,3-diamino-4-(2-hydroxyethoxy)-benzene sulfate, 5-amino-2-methyl-phenol, or 1-naphthol to give bright light blond, gray-blue, purple, or gray-rose died hair colors, resp.				
ST	aminoalkyl diaminobenzene prepn hair dye developer; oxidative hair dye precursor coupler diaminobenzene developer				
IT	Hair preparations (dyes, oxidative; oxidative hair dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)				
IT	90-15-3, 1-Naphthol 95-88-5, 1-Chloro-2,4-dihydroxybenzene 106-50-3, 1,4-Diaminobenzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 533-31-3, 3,4-Methylenedioxyphenol 608-25-3, 2-Methyl-1,3-dihydroxybenzene 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 3-Methyl-4-aminophenol 5697-02-9, 1-Acetoxy-2-methylnaphthalene 6369-59-1, 2,5-Diaminotoluene sulfate 26455-21-0, N-(3-Dimethylamino)phenylurea 56216-28-5, 3,5-Diamino-2,6-dimethoxypyridine dihydrochloride 71005-35-1 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane tetrahydrochloride 84540-50-1, 3-Amino-2-chloro-6-methylphenol 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine 94158-14-2 135043-64-0, 4-Amino-2-aminomethylphenol dihydrochloride 159621-77-9 164919-03-3 217311-43-8, 2,4-Diamino-5-fluorotoluene sulfate 282542-32-9 350482-01-8 350482-02-9, 5-Amino-4-fluoro-2-methylphenol sulfate 364343-79-3				

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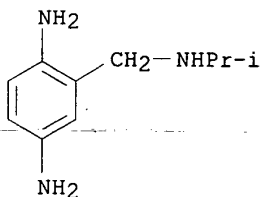
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dye precursor compns. contg. substituted
aminoalkyl diaminobenzene compds. developers)

IT 123-30-8, 4-Aminophenol 591-27-5, 3-Aminophenol
RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT
(Reactant or reagent); USES (Uses)
(oxidative hair dye precursor compns. contg. substituted
aminoalkyl diaminobenzene compds. developers)

IT 350481-07-1P 350481-08-2P 350481-09-3P
350481-10-6P 350481-11-7P 350481-13-9P
350481-15-1P 350481-16-2P 350481-17-3P
350481-18-4P 350481-19-5P 350481-20-8P
350481-21-9P 350481-22-0P 350481-23-1P
350481-24-2P 350481-25-3P 350481-26-4P
350481-27-5P 350481-29-7P 350481-30-0P
350481-31-1P 350481-32-2P 350481-36-6P
350481-40-2P 350481-41-3P 350481-43-5P
350481-44-6P 350481-45-7P 350481-46-8P
350481-47-9P 350481-48-0P 350481-50-4P
350481-51-5P 350481-52-6P 350481-53-7P
350481-54-8P 350481-56-0P 350481-57-1P
350481-58-2P 350481-59-3P 350481-61-7P
350481-62-8P 350481-63-9P 350481-64-0P
350481-65-1P 350481-66-2P 350481-67-3P
350481-69-5P 350481-70-8P 350481-71-9P
350481-72-0P 350481-73-1P 350481-74-2P
350481-75-3P 350481-76-4P 350481-77-5P
350481-78-6P 350481-79-7P 350481-80-0P
350481-81-1P 350481-82-2P 350481-84-4P
350481-85-5P 350481-87-7P 350481-88-8P
350481-89-9P 350481-90-2P 350481-91-3P
350481-92-4P 350481-93-5P 350481-94-6P
350481-95-7P 350481-96-8P 350481-99-1P
350482-00-7P 510774-40-0P 510774-41-1P
510774-42-2P 510774-43-3P 510774-44-4P
510774-45-5P 510774-46-6P 510774-47-7P
510774-48-8P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
study); PREP (Preparation); USES (Uses)
(oxidative hair dye precursor compns. contg. substituted
aminoalkyl diaminobenzene compds. developers)

IT 56-40-6, Glycine, reactions 62-53-3, Aniline, reactions 63-68-3,
L-Methionine, reactions 68-12-2, Dimethylformamide, reactions 70-47-3,
Asparagine, reactions 75-04-7, Ethylamine, reactions 75-31-0,
Isopropylamine, reactions 95-85-2, 4-Chloro-2-aminophenol 96-20-8,
2-Amino-1-butanol 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 98-03-3,
2-Thiophenecarboxaldehyde 99-57-0, 2-Amino-4-nitrophenol 99-98-9,
4-Amino-N,N-dimethylaniline 100-10-7, 4-Dimethylaminobenzaldehyde
100-52-7, Benzaldehyde, reactions 104-86-9, 4-Chlorobenzylamine
106-47-8, 4-Chloroaniline, reactions 106-49-0, 4-Methylaniline,
reactions 107-10-8, Propylamine, reactions 107-11-9, Allylamine
107-15-3, Ethylenediamine, reactions 108-00-9, 2-Dimethylaminoethylamine
109-01-3 109-55-7, 3-Dimethylaminopropylamine 109-83-1,
2-Methylaminoethanol 109-85-3, 2-Methoxyethylamine 110-58-7,
Pentylamine 110-73-6, 2-Ethylaminoethanol 110-91-8, Morpholine,
reactions 111-42-2, Diethanolamine, reactions 120-57-0,
3,4-Methylenedioxybenzaldehyde 123-08-0, 4-Hydroxybenzaldehyde
123-72-8, Butyraldehyde 123-75-1, Pyrrolidine, reactions 141-43-5,

Ethanolamine, reactions 147-85-3, L-Proline, reactions 364-73-8,
 1-Bromo-4-fluoro-3-nitrobenzene 364-74-9 364-76-1 437-83-2,
 3-Fluoro-2-methoxyaniline 446-35-5 455-14-1, 4-Trifluoromethylaniline
 498-62-4, 3-Thiophenecarboxaldehyde 498-63-5, Prolinol 500-22-1,
 Pyridine-3-carboxaldehyde 525-72-4, 1-Methyl-6,7-dihydroxy-1,2,3,4-
 tetrahydroisoquinoline 536-21-0, 1-(3-Hydroxyphenyl)-2-aminoethanol
 536-90-3, 3-Methoxyaniline 555-16-8, 4-Nitrobenzaldehyde, reactions
 587-04-2, 3-Chlorobenzaldehyde 590-86-3 616-30-8 617-89-0,
 Furfurylamine 765-30-0, Cyclopropylamine 872-85-5,
 Pyridine-4-carboxaldehyde 1001-53-2, N-Acetylenediamine
 1117-97-1, O,N-Dimethylhydroxylamine 1121-60-4, Pyridin-2-carboxaldehyde
 1493-27-2, 1-Fluoro-2-nitrobenzene 2038-03-1, 4-Morpholineethanamine
 2043-61-0, Cyclohexanecarboxaldehyde 2454-37-7, 3-(1-
 Hydroxyethyl)aniline 2516-47-4, Aminomethylcyclopropane 2812-47-7,
 Prolinamide 2835-95-2, 3-Amino-6-methylphenol 3731-51-9,
 2-Picolylamine 3731-53-1, 4-Picolylamine 4214-76-0,
 2-Amino-5-nitropyridine 4795-29-3, Tetrahydrofurfurylamine 5036-48-6,
 1-(3-Aminopropyl)imidazole 5382-16-1, 4-Hydroxypiperidine 5616-32-0,
 Methylaminoacetonitrile 6168-72-5, 2-Aminopropanol 6291-85-6,
 3-Ethoxypropylamine 6315-89-5, 3,4-Dimethoxyaniline 6859-99-0,
 3-Hydroxypiperidine 6921-22-8 7304-32-7, 2-Fluoro-5-nitrobenzoic acid
 7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidone 13325-10-5, 4-Aminobutanol
 14268-66-7, 3,4-Methylenedioxyaniline 24424-99-5, Di(tert-butyl
 dicarbonate) 25739-59-7 35303-76-5, 4-(2-Aminoethyl)benzenesulfonamide
 40499-83-0, 3-Hydroxypyrrolidine 51980-54-2, 4-Pyrrolidinobenzaldehyde
 68621-88-5 71026-66-9 244104-65-2 325953-40-0 325953-41-1
 325953-45-5 325953-46-6 325953-48-8 510774-39-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxidative **hair** dye precursor compns. contg. substituted
 aminoalkyl diaminobenzene compds. developers)
 IT 325953-36-4P 350481-97-9P 350481-98-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (oxidative **hair** dye precursor compns. contg. substituted
 aminoalkyl diaminobenzene compds. developers)
 IT **350481-07-1P**
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation); USES (Uses)
 (oxidative **hair** dye precursor compns. contg. substituted
 aminoalkyl diaminobenzene compds. developers)
 RN 350481-07-1 HCAPLUS
 CN 1,4-Benzenediamine, 2-[[1-methylethyl]amino]methyl]-, hydrochloride (9CI)
 (CA INDEX NAME)

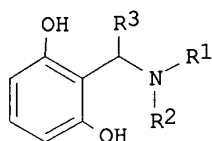


● x HCl

L26 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:238180 HCAPLUS
 DN 138:271380
 TI Preparation of 2-substituted resorcinol derivatives containing coloring agent as well as new resorcinol derivatives
 PA Wella AG, Germany
 SO Ger. Gebrauchsmusterschrift, 48 pp.
 CODEN: GGXXFR
 DT Patent
 LA German
 IC ICM C07C215-52
 ICS A61K007-13; C07D213-36; C07D307-00; C07D207-04
 CC 25-10 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 41, 62

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20217957	U1	20030327	DE 2002-20217957	20021120
PRAI	DE 2002-20217957		20021120		
OS	MARPAT 138:271380				
GI					



I

AB A means of the coloring **keratin** fibers based on a developer/generator substance coupling agent combination, is characterized by the fact that it contains at least one resorcinol deriv. I [R1, R2 = H, C1-6-alkyl, C2-6-alkenyl, acetyl, C1-4-alkoxy, C1-4-hydroxyalkyl, C2-4-dihydroxyalkyl, C1-4-alkoxy-C1-4-alkyl, C1-4-hydroxyalkoxy-C1-4-alkyl, C1-4-aminoalkyl, C1-4-(dimethylamino)alkyl, C1-4-(acetylamino)alkyl, C1-4-[(tert-butoxycarbonyl)amino]alkyl, C1-4-cyanoalkyl, C1-4-carboxyalkyl, C1-4-(aminocarbonyl)alkyl, pyridyl Me, furfuryl, tetrahydrofurfuryl, methyltetrahydrofurfuryl, (un)substituted pyridyl, Ph, pyrazolyl, piperidinyl, morpholinyl, piperazinyl, pyrrolidinyl; R3 = H, C1-6-alkyl] or its physiol. compatible water-sol. salts. Thus, I [R1 = CH2CH2OMe, R2 = R3 = H] was prepd. from resorcinol, via O-alkylation with ClCH2CH2OMe, Vilsmeier formylation, O-deprotection and reductive amination with MeOCH2CH2NH2. A **hair** dye was prepd. contg. I [R1 = CH2CH2OMe, R2 = R3 = H] and 2,5-diaminotoluene sulfate-(developing-agent) giving a medium blond color.

ST resorcinol deriv prepn coloring agent **keratin** fiber; aniline deriv developer coupling agent dye component

IT **Hair** preparations
 (dyes; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT Fibers
 RL: NUU (Other use, unclassified); USES (Uses)

- (keratin, coloring agents for; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)
- IT Amines, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reductive amination by, of dihydroxybenzaldehyde; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)
- IT Phenols, preparation
RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(resorcinol derivs.; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)
- IT 627-42-9, 1-Chloro-2-methoxyethane
RL: RCT (Reactant); RACT (Reactant or reagent)
(O-alkylation by, of resorcinol; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)
- IT 90-15-3, 1-Naphthol 95-88-5, 1-Chloro-2,4-dihydroxybenzene 108-46-3, Resorcinol, biological studies 591-27-5, 3-Aminophenol 608-25-3, 2-Methyl-1,3-dihydroxybenzene 2835-95-2, 5-Amino-2-methylphenol 5697-02-9, 1-Acetoxy-2-methylnaphthalene 26455-21-0, N-[3-(Dimethylamino)phenyl]urea 49647-58-7, 2,4,5,6-Tetraaminopyrimidine sulfate 70643-20-8, 1,3-Diamino-4-(2-hydroxyethoxy)benzene sulfate 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane tetrahydrochloride 83763-48-8, 2-Amino-4-[(2-hydroxyethyl)amino]anisole sulfate 84540-50-1, 3-Amino-2-chloro-6-methylphenol
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(coupling substance for coloring agent contg. resorcinol derivs.; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)
- IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-(Diethylamino)aniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-86-3, 2,4-Diaminophenol 99-98-9, 4-(Dimethylamino)aniline 101-54-2, 4-(Phenylamino)aniline 106-50-3, 1,4-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol 123-31-9, 1,4-Dihydroxybenzene, biological studies 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-73-3, 1,2,4-Trihydroxybenzene 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triaminopyrimidin-4-(1H)-one 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6369-59-1, 2,5-Diaminotoluene sulfate 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 17272-83-2, N-Benzylbenzene-1,4-diamine 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 58262-44-5, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine sulfate 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline 67199-87-5, 1,4-Diamino-2-(aminomethyl)benzene 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71411-90-0 73793-80-3, 1,4-Diamino-2-(hydroxymethyl)benzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 93841-25-9, (2,5-Diaminophenyl)ethanol sulfate 97902-52-8,

1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-(Dipropylamino)aniline 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-aminophenyl)amino]butane 131311-66-5, 4,5-Diamino-1-benzyl-1H-pyrazole 135043-64-0, 4-Amino-2-(aminomethyl)phenol dihydrochloride 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 155601-30-2, 4,5-Diamino-1-(2-hydroxyethyl)pyrazole sulfate 157469-53-9, 4,5-Diamino-1-[(4-methoxyphenyl)methyl]-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 4,5-Diamino-1-[(4-chlorophenyl)methyl]-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 181473-60-9, N-[(Furan-2-yl)methyl]benzene-1,4-diamine 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 244104-61-8, 1,4-Diamino-2-(thien-2-yl)benzene 246244-41-7, 1,4-Diamino-2-(thien-3-yl)benzene 251114-07-5, 2,3',5-Triamino-1,1'-biphenyl 306959-12-6, 1,4-Diamino-2-(pyridin-3-yl)benzene **325952-88-3** 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-(methoxymethyl)benzene 400058-21-1, 4,5-Diamino-1-pentyl-1H-pyrazole 402559-72-2, N-[(Thien-3-yl)methyl]benzene-1,4-diamine 402559-73-3, N-[(Furan-3-yl)methyl]benzene-1,4-diamine 402559-76-6, N-[(Thien-2-yl)methyl]benzene-1,4-diamine 402825-68-7, N-[4-(Pyrrolidin-1-yl)benzyl]benzene-1,4-diamine 503046-72-8, 4-(2,5-Diaminophenyl)-2-[(diethylamino)methyl]thiophene 503046-73-9, 2-Chloro-3-(2,5-diaminophenyl)thiophene 503046-74-0, 2,5-Diamino-4'-(1-methylethyl)-1,1'-biphenyl **503046-75-1**, 1,4-Diamino-2-[(phenylamino)methyl]benzene **503046-76-2** 503046-96-6 503047-00-5, 2,5-Diamino-4'-hydroxy-1,1'-biphenyl 503047-01-6, 2,5-Diamino-2'-(trifluoromethyl)-1,1'-biphenyl 503047-02-7, 2,4',5-Triamino-1,1'-biphenyl
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(developer substance for coloring agent contg. resorcinol derivs.;
prepn. of 2-substituted resorcinol derivs. contg. coloring agent as
well as new resorcinol derivs.)
IT 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 131657-78-8,
6-Chloro-2-(ethylamino)-4-nitrophenol
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(direct dye coupling substance for resorcinol derivs. contg. coloring
agent; prepn. of 2-substituted resorcinol derivs. contg. coloring agent
as well as new resorcinol derivs.)
IT 94564-77-9P 503046-49-9P 503046-50-2P 503046-51-3P 503046-52-4P
503046-53-5P, 1-(2,6-Dihydroxybenzyl)piperidin-4-ol 503046-54-6P
503046-55-7P 503046-56-8P 503046-57-9P 503046-58-0P 503046-59-1P
503046-60-4P 503046-61-5P 503046-62-6P 503046-63-7P 503046-64-8P
503046-65-9P 503046-66-0P 503046-67-1P 503046-68-2P 503046-69-3P
RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation);
BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and color of dyes contg.; prepn. of 2-substituted resorcinol
derivs. contg. coloring agent as well as new resorcinol derivs.)
IT 503046-71-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and deprotection of; prepn. of 2-substituted resorcinol derivs.
contg. coloring agent as well as new resorcinol derivs.)

IT 503046-70-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and formylation of; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 387-46-2P, 2,6-Dihydroxybenzaldehyde
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reductive amination of, with amines and aniline derivs.; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

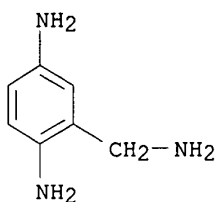
IT 503047-03-8P
RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 94564-81-5P, 1,3-Dihydroxy-2-(aminomethyl)benzene 503046-77-3P,
N-[2-(2,6-Dihydroxybenzylamino)ethyl]acetamide 503046-78-4P,
1,3-Dihydroxy-2-[(methylamino)methyl]benzene 503046-79-5P,
2-[(2,6-Dihydroxybenzyl)amino]ethanol 503046-80-8P, 1-[2,6-Dihydroxybenzyl]pyridin-3-ol 503046-81-9P, [1-(2,6-Dihydroxybenzyl)pyrrolidin-2-yl]methanol 503046-82-0P,
1-(2,6-Dihydroxybenzyl)piperidin-3-ol 503046-83-1P 503046-84-2P,
2-(2,6-Dihydroxybenzylamino)propan-1-ol 503046-85-3P 503046-86-4P
503046-87-5P 503046-88-6P 503046-89-7P 503046-90-0P 503046-91-1P,
1,3-Dihydroxy-2-[(phenylamino)methyl]benzene 503046-93-3P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 90-04-0, 1-Amino-2-methoxybenzene 99-57-0, 2-Amino-4-nitrophenol 104-94-9, 1-Amino-4-methoxybenzene 107-11-9, Allylamine 107-15-3, (2-Aminoethyl)amine, reactions 109-85-3, (2-Methoxyethyl)amine 110-91-8, Morpholine, reactions 111-42-2, Bis(2-hydroxyethyl)amine, reactions 123-75-1, Pyrrolidine, reactions 462-08-8, 3-Aminopyridine 504-29-0, 2-Aminopyridine 536-90-3, 1-Amino-3-methoxybenzene 617-89-0, [(2-Furyl)methyl]amine 929-06-6, [2-(2-Hydroxyethoxy)ethyl]amine 2735-04-8, 1-Amino-2,4-dimethoxybenzene 5382-16-1, 4-Hydroxypiperidine 7175-81-7, (S)-[(Tetrahydrofuran-2-yl)methyl]amine 57260-73-8, N-(2-Aminoethyl)carbamic acid 1,1-dimethylethyl ester 71026-66-9, N-(4-Aminophenyl)carbamic acid 1,1-dimethylethyl ester
RL: RCT (Reactant); RACT (Reactant or reagent)
(reductive amination of dihydroxybenzaldehyde by; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

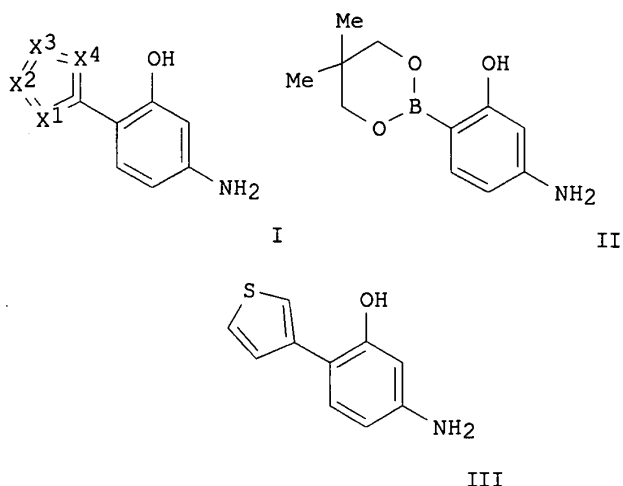
IT 67199-87-5, 1,4-Diamino-2-(aminomethyl)benzene
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(developer substance for coloring agent contg. resorcinol derivs.; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2003:170369 HCAPLUS
DN 138:206431
TI Preparation of 3-aminophenols as oxidative dyeing agents of human
hair
IN Pasquier, Cecile; Wyss, Patrick; Braun, Hans-Juergen
PA Wella AG, Germany
SO Ger. Offen., 14 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C07D333-06
ICS C07D333-20; C07D307-52; C07D277-04; A61K007-13
CC 40-6 (Textiles and Fibers)
Section cross-reference(s): 25, 41
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10141723	A1	20030306	DE 2001-10141723	20010825
	WO 2003018571	A1	20030306	WO 2002-EP4495	20020424
	W:				
					AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
					CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
					GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
					LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
					PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
					UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
					TJ, TM
	RW:				
					GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
					CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
					BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI	DE 2001-10141723	A	20010825		
OS	MARPAT 138:206431				
GI					



AB Title comps. I [X1, X2, X3 = S, N, O, etc., with provisos] were prepd. For example, aryl coupling of dioxaborinane II, e.g., prepd. from 3-aminophenol in 4-steps, and 3-bromothiophene, followed by HCL mediated phenol deprotection afforded diaminobenzene III hydrochloride in 23% yield. In coloration studies of bleached **hair**, 9-examples of comps. I in combination with 4-dyeing developers resulted in a range of **hair** coloring, e.g., a prepn. of diaminobenzene III hydrochloride and 2,5-diaminotoluene sulfate produced a violet color.

ST prepn aminophenol oxidative dye agent human **hair keratin**

IT **Hair preparations**
(dyes; prepn. of aminophenols as oxidative dyeing agents of human **hair.**)

IT Human
(prepn. of aminophenols as oxidative dyeing agents of human **hair.**)

IT **Keratins**
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(prepn. of aminophenols as oxidative dyeing agents of human **hair.**)

IT 500354-21-2P, 3-Ethoxymethoxyphenylamine 500354-22-3P 500354-23-4P
500354-24-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of aminophenols as oxidative dyeing agents of human **hair.**)

IT 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazol
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(prepn. of aminophenols as oxidative dyeing agents of human **hair.**)

IT 83-56-7, 1,5-Naphthalenediol 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone
89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol
90-15-3, 1-Naphthol 91-56-5, 2,3-Indolindione 91-68-9,
3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9,
4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline
95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5,
1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 99-98-9,

4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3,
1,4-Diaminobenzene, reactions 108-45-2, 1,3-Diaminobenzene, reactions
108-46-3, 1,3-Dihydroxybenzene, reactions 123-30-8, 4-Aminophenol
137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6,
2,6-Diaminopyridine 150-75-4, 4-Methylaminophenol 399-95-1,
4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-31-3,
3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxybenzene 575-38-2,
1,7-Naphthalenediol 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5,
3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-50-9
615-66-7, 2-Chloro-1,4-diaminobenzene 619-05-6, 3,4-Diaminobenzoic acid
770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1004-74-6,
2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone
1630-11-1, 1,4-Diamino-3,5-diethylbenzene 1687-53-2,
5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2359-52-6,
4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2380-84-9, 7-Hydroxyindole
2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2,
5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5,
2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7,
2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene
5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9,
2-Methyl-1-naphtholacetate 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline
6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline
6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene
6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene
7228-00-4, 2-[(3-Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol
7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 14268-66-7,
3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine 17672-22-9,
2-Amino-6-methylphenol 26011-57-4, 6-Amino-3,4-dihydro-[1,4](2H)-benzoxazine
26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-(3-Dimethylaminophenyl)urea
28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline
29785-47-5, 4-Amino-2-(methoxymethyl)phenol 39489-79-7,
5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol 55302-96-0,
5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3, 3-Amino-2,4-dichlorophenol
66566-48-1, 4-[(2-Methoxyethyl)amino]aniline 67199-87-5, 1,4-Diamino-2-aminomethylbenzene
70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 70643-20-8, 1,3-Diamino-4-(2-hydroxyethoxy)
benzene sulfate 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene 71500-41-9,
4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene 71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline
73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane
tetrahydrochloride 75513-65-4, 1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2,
3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene
79352-72-0, 4-Amino-2-(aminomethyl)phenol 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol
80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol 81329-90-0, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxol
81892-72-0, 1,3-Di(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole
83763-48-8, 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxyacetic acid
84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine
86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine
93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 93841-25-9, 94082-77-6, 2,4-Diamino-1,5-di(2-hydroxyethoxy)benzene
94158-14-2, 97902-52-8,

1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 105293-89-8, 4-Dipropylaminoaniline 109942-17-8, 2,5-Diaminobiphenyl 110102-86-8, 5-Amino-4-chloro-2-methylphenol 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8, 2,4-Di-[(2-Hydroxyethyl)amino]-1,5-dimethoxybenzene 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-Aminophenyl)amino]butane 131657-78-8, 6-Chloro-2-ethylamino-4-nitrophenol 135043-64-0, 4-Amino-2-aminomethylphenol dihydrochloride 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethyl)aminotoluene 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazol 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazol 155601-30-2, 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazol 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazol 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168092-23-7, Di(2,4-diaminophenoxy)methane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 207923-07-7, 5-Amino-2-ethylphenol 217311-43-8, 2-4-Diamino-5-fluorotoluene sulfate 244104-61-8, 1,4-Diamino-2-(thiophen-2-yl)benzene 246244-41-7, 1,4-Diamino-2-(thiophen-3-yl)benzene 282542-32-9, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine sulfate 306959-12-6, 1,4-Diamino-2-(pyridin-3-yl)benzene 307493-94-3, 1,3-Diamino-4-(3-hydroxypropoxy)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 350482-02-9, 5-Amino-4-fluoro-2-methylphenol sulfate

RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(prepn. of aminophenols as oxidative dyeing agents of human hair.)

IT 500353-66-2P, 5-Amino-2-(3-thienyl)phenol 500353-67-3P, 5-Amino-2-(3-furyl)phenol 500353-68-4P, 5-Amino-2-(pyrrol-3-yl)phenol 500353-69-5P, 5-Amino-2-(1-methyl-1H-pyrrol-3-yl)phenol 500353-70-8P, 5-Amino-2-(1,3-thiazol-2-yl)phenol 500353-71-9P, 5-Amino-2-(1,3-thiazol-5-yl)phenol 500353-72-0P, 5-Amino-2-(2-thienyl)phenol 500353-73-1P, 5-Amino-2-(2-furyl)phenol 500353-74-2P, 5-Amino-2-(pyrrol-2-yl)phenol 500353-75-3P, 5-Amino-2-(1-methyl-1H-pyrrol-2-yl)phenol 500353-76-4P, 5-Amino-2-(2-chloro-3-thienyl)phenol 500353-77-5P, 5-Amino-2-(2-methyl-3-thienyl)phenol 500353-78-6P, 5-Amino-2-(2-nitro-3-thienyl)phenol 500353-79-7P, 5-Amino-2-(2-amino-3-thienyl)phenol 500353-80-0P, 5-Amino-2-(2-acetyl-3-thienyl)phenol 500353-81-1P, 5-Amino-2-(2-formyl-3-thienyl)phenol 500353-82-2P, 5-Amino-2-(4-chloro-3-thienyl)phenol 500353-83-3P, 5-Amino-2-(4-methyl-3-thienyl)phenol 500353-84-4P, 5-Amino-2-(4-nitro-3-thienyl)phenol 500353-85-5P, 5-Amino-2-(4-amino-3-thienyl)phenol 500353-86-6P, 5-Amino-2-(4-acetyl-3-thienyl)phenol 500353-87-7P, 5-Amino-2-(4-formyl-3-thienyl)phenol 500353-88-8P, 5-Amino-2-(5-chloro-3-thienyl)phenol 500353-89-9P, 5-Amino-2-(5-methyl-3-

thienyl)phenol 500353-90-2P, 5-Amino-2-(5-nitro-3-thienyl)phenol
 500353-91-3P, 5-Amino-2-(5-acetyl-3-thienyl)phenol 500353-92-4P,
 5-Amino-2-(5-amino-3-thienyl)phenol 500353-93-5P, 5-Amino-2-(5-formyl-3-
 thienyl)phenol 500353-94-6P, 5-Amino-2-(5-formyl-3-furyl)phenol
 500353-95-7P, 5-Amino-2-(3-chloro-2-thienyl)phenol 500353-96-8P,
 5-Amino-2-(3-methyl-2-thienyl)phenol 500353-97-9P, 5-Amino-2-(3-nitro-2-
 thienyl)phenol 500353-98-0P, 5-Amino-2-(3-amino-2-thienyl)phenol
 500353-99-1P, 5-Amino-2-(3-acetyl-2-thienyl)phenol 500354-00-7P,
 5-Amino-2-(3-formyl-2-thienyl)phenol 500354-01-8P, 5-Amino-2-(4-chloro-2-
 thienyl)phenol 500354-02-9P, 5-Amino-2-(4-methyl-2-thienyl)phenol
 500354-03-0P, 5-Amino-2-(4-nitro-2-thienyl)phenol 500354-04-1P,
 5-Amino-2-(4-amino-2-thienyl)phenol 500354-05-2P, 5-Amino-2-(4-acetyl-2-
 thienyl)phenol 500354-07-4P, 5-Amino-2-(4-formyl-2-thienyl)phenol
 500354-08-5P, 5-Amino-2-(5-chloro-2-thienyl)phenol 500354-09-6P,
 5-Amino-2-(5-methyl-2-thienyl)phenol 500354-10-9P, 5-Amino-2-(5-nitro-2-
 thienyl)phenol 500354-11-0P, 5-Amino-2-(5-amino-2-thienyl)phenol
 500354-12-1P, 5-Amino-2-(5-acetyl-2-thienyl)phenol 500354-13-2P,
 5-Amino-2-(5-formyl-2-thienyl)phenol 500354-14-3P, 5-Amino-2-(5-formyl-2-
 furyl)phenol 500354-15-4P, 5-Amino-2-(5-nitro-1,3-thiazol-2-yl)phenol
 500354-16-5P, 5-Amino-2-(5-amino-1,3-thiazol-2-yl)phenol 500354-17-6P,
 5-Amino-2-(2-nitro-1,3-thiazol-5-yl)phenol 500354-18-7P,
 5-Amino-2-(2-amino-1,3-thiazol-5-yl)phenol 500354-19-8P,
 5-Amino-2-(3,5-dimethyl-1H-pyrazol-4-yl)phenol 500354-20-1P,
 5-Amino-2-(5-nitro-4H-1,2,4-triazol-3-yl)phenol 500354-25-6P,
 5-Amino-2-(3-thienyl)phenol hydrochloride 500354-26-7P,
 5-Amino-2-(3-furyl)phenol hydrochloride 500354-27-8P,
 5-Amino-2-(1,3-thiazol-2-yl)phenol hydrochloride 500354-28-9P,
 5-Amino-2-(2-thienyl)phenol hydrochloride 500354-29-0P,
 5-Amino-2-(4-methyl-3-thienyl)phenol hydrochloride 500354-30-3P,
 5-Amino-2-(2-chloro-3-thienyl)phenol hydrochloride 500354-31-4P,
 5-Amino-2-(5-chloro-2-thienyl)phenol hydrochloride 500354-32-5P,
 5-Amino-2-(5-acetyl-2-thienyl)phenol hydrochloride 500354-33-6P,
 5-Amino-2-(5-formyl-2-furyl)phenol hydrochloride
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation); USES (Uses)

(prepn. of aminophenols as oxidative dyeing agents of human
 hair.)

IT 872-31-1, 3-Bromothiophene 1003-09-4, 2-Bromothiophene 2873-18-9,
 2-Bromo-5-chlorothiophene 3034-53-5, 2-Bromo-1,3-thiazol 3188-13-4,
 Chloromethyl ethyl ether 4701-17-1, 2-Bromo-5-formylthiophene
 5370-25-2, 2-Bromo-5-acetylthiophene 22037-28-1, 3-Bromofuran
 24424-99-5, Di-tert-butylidicarbonate 30318-99-1, 3-Bromo-4-
 methylthiophene 40032-73-3, 3-Bromo-2-chlorothiophene 201733-56-4
 RL: RCT (Reactant); RACT (Reactant or reagent)

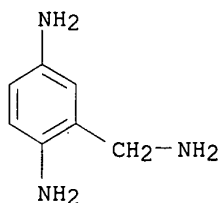
(prepn. of aminophenols as oxidative dyeing agents of human
 hair.)

IT 67199-87-5, 1,4-Diamino-2-aminomethylbenzene
 RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT
 (Reactant or reagent); USES (Uses)

(prepn. of aminophenols as oxidative dyeing agents of human
 hair.)

RN 67199-87-5 HCAPLUS

CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:904285 HCAPLUS
 DN 137:375003
 TI Synthesis of 1,3-dihydroxybenzene derivatives and their use in oxidative
hair dyes
 IN Chassot, Laurent; Braun, Hans-Juergen
 PA Wella Ag, Germany
 SO Ger. Offen., 14 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM C07D333-06
 ICS C07D333-12; C07D307-38; C07F007-08; A61K007-13; C07D207-325
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 27
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10125453	A1	20021128	DE 2001-10125453	20010525
	WO 2002096901	A2	20021205	WO 2002-EP850	20020128
	WO 2002096901	A3	20030313		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	BR 2002005398	A	20030701	BR 2002-5398	20020128
PRAI	DE 2001-10125453	A	20010525		
	DE 2001-20108704	U	20010525		
	WO 2002-EP850	W	20020128		
OS	MARPAT 137:375003				
AB	The invention concerns 1,3-dihydroxybenzene derivs., their synthesis and application as coupling agents in oxidative hair dyes. Thus 1,3-dihydroxy-4-(thiophene-2yl)-benzene was synthesized in a three step reaction and used in a hair dye compn. as a 1.25 mmol ingredient; other components were: 1,4-diaminobenzene 1.25 mmol; potassium oleate (8% soln.) 1.0 g; ammonia (22% soln.) 1.0 g; ethanol 1.0g; ascorbic acid 0.3 g; water to 100 g.				
ST	dihydroxybenzene deriv oxidative hair dye				
IT	Hair preparations (dyes, oxidative; synthesis of 1,3-dihydroxybenzene derivs. and their				

- use in oxidative hair dyes)
- IT 72287-26-4, Di-chloro(1,1'-bis(diphenyl-phosphino)ferrocene)palladium
RL: CAT (Catalyst use); USES (Uses)
(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative hair dyes)
- IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicyclic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 123-30-8, 4-Aminophenol 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluoro-phenol 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxybenzene 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-66-7, 2-Chloro-1,4-diaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 3131-52-0, 5,6-Dihydroxyindole 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 2-Methyl-1-naphthol-acetate 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7228-00-4, 2-[(3-Hydroxyphenyl)amino]-acetamide 7469-77-4, 2-Methyl-1-naphthol 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine 17672-22-9, 2-Amino-6-methylphenol 26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-(3-Dimethylaminophenyl)urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 39489-79-7, 5-Amino-2,4-dichloro-phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3, 3-Amino-2,4-dichloro-phenol 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline 67199-87-5, 1,4-Diamino-2-aminomethylbenzene 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene 71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene 71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline 73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 75513-65-4, 1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2, 3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene 79352-72-0,

4-Amino-2-(aminomethyl)phenol 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol 81892-72-0, 1,3-Di(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxy acetic acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 94082-77-6, 2,4-Diamino-1,5-di(2-hydroxyethoxy)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 105293-89-8, 4-Dipropylaminoaniline 109942-17-8, 2,5-Diaminobiphenyl 110102-86-8, 5-Amino-4-chloro-2-methylphenol 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8, 2,4-Di[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-Aminophenyl)amino]butane 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethyl)aminotoluene 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168092-23-7, Di(2,4-diaminophenoxy)methane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 207923-07-7, 5-Amino-2-ethylphenol 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 244104-61-8 246244-41-7 306959-12-6 307493-94-3, 1,3-Diamino-4-(3-hydroxypropoxy)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 475391-60-7

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative hair dyes)

IT 365548-62-5P 365548-63-6P 365548-64-7P

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative hair dyes)

IT 110-87-2, 3,4-Dihydro-2H-pyran 1003-09-4, 2-Bromothiophene 6626-15-9, 4-Bromo-1,3-dihydroxybenzene 13195-50-1, 2-Bromo-5-nitrothiophene 14282-76-9, 2-Bromo-3-methylthiophene 73183-34-3

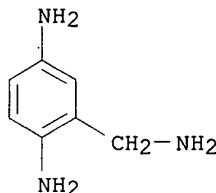
RL: RCT (Reactant); RACT (Reactant or reagent)

(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative hair dyes)

IT 31963-61-8P 365548-74-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative hair dyes)
 IT 67199-87-5, 1,4-Diamino-2-aminomethylbenzene
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative hair dyes)
 RN 67199-87-5 HCAPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:904284 HCAPLUS
 DN 137:375002
 TI Synthesis of N-benzyl-m-phenylenediamine derivatives and their use in oxidative hair dyes
 IN Chassot, Laurent; Braun, Hans-Juergen
 PA Wella Ag, Germany
 SO Ger. Offen., 18 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM C07C217-82
 ICS C07C233-18; C07C215-00; C07C311-00; C07C317-00; C07C323-00;
 C07F007-10; A61K007-13; C07D231-38; D06P001-642
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 25
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	DE 10125451	A1	20021128	DE 2001-10125451	20010525	
	WO 2002096854	A1	20021205	WO 2002-EP1087	20020202	
	W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
	RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
	BR 2002005434	A	20030624	BR 2002-5434	20020202	
PRAI	DE 2001-10125451	A	20010525			
	WO 2002-EP1087	W	20020202			
OS	MARPAT 137:375002					
AB	The invention concerns N-benzyl-m-phenylenediamine derivs., their synthesis and application as coupling agents in oxidative hair					

dyes. Thus 2-[4-amino-2-benzylamino-phenoxy]-ethanol hydrochloride was synthesized in a two step reaction starting from 2-(2,4-diaminophenoxy)ethanol and di-tert.-butyldicarbonate; the product was reacted with benzaldehyde. A hair dye compn. contained:

2-[4-amino-2-benzylamino-phenoxy]-ethanol hydrochloride 1.25 mmol;
1,4-diaminobenzene 1.25 mmol; potassium oleate (8% soln.) 1.0 g; ammonia (22% soln.) 1.0 g; ethanol 1.0g; ascorbic acid 0.3 g; water to 100 g.

ST benzyl phenylene diamine deriv oxidative hair dye

IT Hair preparations

(dyes, oxidative; synthesis of N-benzyl-m-phenylenediamine derivs. and their use in oxidative hair dyes)

IT 89-57-6, 5-Aminosalicyclic acid 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluoro-phenol 533-73-3, 1,2,4-Benzenetriol 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline 67199-87-5, 1,4-Diamino-2-aminomethylbenzene 73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropylaminoaniline 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-Aminophenyl)amino]butane 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 244104-61-8 246244-41-7 306959-12-6 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 475490-37-0 475490-38-1 475490-39-2 475490-40-5 475490-41-6 475490-42-7 475490-43-8 475490-44-9 475490-45-0 475490-46-1 475490-47-2 475490-48-3 475490-49-4 475490-50-7 475490-51-8 475490-52-9 475490-53-0 475490-54-1 475490-55-2 475490-56-3 475490-57-4 475490-58-5 475490-59-6 475490-60-9 475490-61-0 475490-62-1 475490-63-2 475490-64-3 475490-65-4 475490-66-5 475490-67-6 475490-68-7 475490-69-8 475490-70-1 475490-71-2 475490-72-3 475490-73-4 475490-74-5 475490-75-6 475490-76-7 475490-77-8 475490-78-9

475490-79-0 475490-80-3 475490-81-4 475490-82-5 475490-83-6
475490-84-7 475490-85-8 475490-86-9 475490-87-0 475490-88-1
475490-89-2 475490-90-5 475490-91-6 475490-92-7 475490-93-8
475490-94-9

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(synthesis of N-benzyl-m-phenylenediamine derivs. and their use in
oxidative **hair** dyes)

IT 475490-95-0P 475490-96-1P 475490-97-2P 475490-98-3P 475490-99-4P
475491-00-0P 475491-01-1P 475491-02-2P 475491-03-3P 475491-04-4P
475491-05-5P 475491-06-6P 475491-07-7P 475491-08-8P 475491-09-9P
475491-10-2P 475491-11-3P 475491-12-4P 475491-13-5P 475491-14-6P

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
study); PREP (Preparation); USES (Uses)

(synthesis of N-benzyl-m-phenylenediamine derivs. and their use in
oxidative **hair** dyes)

IT 90-02-8, 2-Hydroxybenzaldehyde, reactions 100-10-7, 4-
Dimethylaminobenzaldehyde 100-52-7, Benzaldehyde, reactions 100-83-4,
3-Hydroxybenzaldehyde 122-85-0, 4-Acetamidobenzaldehyde 123-08-0,
4-Hydroxybenzaldehyde 123-11-5, 4-Methoxybenzaldehyde, reactions
135-02-4, 2-Methoxybenzaldehyde 529-23-7, 2-Aminobenzaldehyde
555-16-8, 4-Nitrobenzaldehyde, reactions 619-66-9, 4-Formyl benzoic acid
1194-98-5, 2,5-Dihydroxybenzaldehyde 1709-44-0, 3-Aminobenzaldehyde
17354-79-9 22042-73-5 24424-99-5, Di-tert-butylidicarbonate
27913-86-6 58028-76-5 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol
144072-30-0, (4-Formyl-phenyl)-carbamic acid tert-butylester 402826-41-9
402826-43-1

RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of N-benzyl-m-phenylenediamine derivs. and their use in
oxidative **hair** dyes)

IT 325953-48-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(synthesis of N-benzyl-m-phenylenediamine derivs. and their use in
oxidative **hair** dyes)

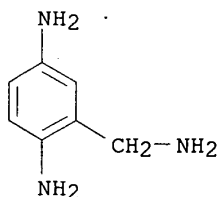
IT **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(synthesis of N-benzyl-m-phenylenediamine derivs. and their use in
oxidative **hair** dyes)

RN 67199-87-5 HCAPLUS

CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:777882 HCAPLUS

DN 137:296211

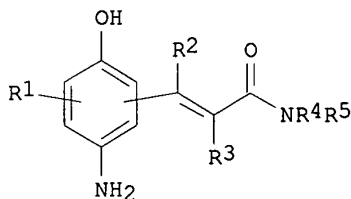
TI (1-Amino-4-hydroxyphenyl)acrylamide derivatives and oxidative **hair**
dyes containing them

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

IN Chassot, Laurent; Braun, Hans-Juergen
 PA Wella Aktiengesellschaft, Germany
 SO PCT Int. Appl., 57 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 IC ICM C07C237-20
 ICS A61K007-13; D06P001-32; C07D295-18; C07D295-12; C07D231-38;
 C07D307-52; C07D211-46; C07D207-27; C07D213-75; C07D233-61;
 C07D307-22; C07D317-66; C07D207-08; C07D207-16; C07D211-42
 CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
 Sensitizers)
 Section cross-reference(s): 25, 27, 28, 62

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 2002079144	A1	20021010	WO 2001-EP12126	20011019	
	W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
	RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
	DE 10115994	A1	20021010	DE 2001-10115994	20010330	
	EP 1286953	A1	20030305	EP 2001-274059	20011019	
	R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR		
	BR 2001011197	A	20030408	BR 2001-11197	20011019	
PRAI	DE 2001-10115994	A	20010330			
	WO 2001-EP12126	W	20011019			
OS	MARPAT 137:296211					
GI						



AB The invention relates to aminohydroxyphenylacrylamide derivs. (I; R1 = H, halogen, alkyl, hydroxyalkyl, alkoxy; R2, R3 = H, alkyl; R4, R5 = H, alkyl, unsatd. alkyl, hydroxyalkyl, alkoxy, optionally substituted aminoalkyl, cyanoalkyl, carboxyalkyl, aminocarbonylalkyl, arom. group, heterocyclic group) or physiol. acceptable, water-sol. salts of I, and to oxidative hair dyes contg. I as developers. I provide hair dyes with very good fastness to light and washing. Examples were given in which 3-(5-amino-2-hydroxyphenyl)acrylamide derivs. were prepd. from 3-[5-(tert-butoxycarbonylamino)-2-(ethoxymethoxy)phenyl]acrylic acid and the appropriate amines or amine

derivs.
ST aminohydroxyphenylacrylamide deriv prodn developer component oxidative
hair dye
IT Hair preparations
(dyes, oxidative; aminohydroxyphenylacrylamide deriv. developers for
oxidative hair dyes)
IT 467466-23-5 467466-24-6 467466-25-7 467466-26-8 467466-27-9
467466-28-0 467466-29-1 467466-30-4
RL: TEM (Technical or engineered material use); USES (Uses)
(aminohydroxyphenylacrylamide deriv. developers for oxidative
hair dyes)
IT 128-08-5, N-Bromosuccinimide
RL: RCT (Reactant); RACT (Reactant or reagent)
(brominating agent; prodn. of aminohydroxyphenylacrylamide deriv.
developers for oxidative hair dyes)
IT 14268-66-7, 3,4-Methylenedioxyaniline
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT
(Reactant or reagent); USES (Uses)
(couplers for oxidative hair dyes contg.
aminohydroxyphenylacrylamide deriv. developers)
IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-
pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3,
1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-(Diethylamino)phenol
92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 1-Chloro-2,4-dihydroxybenzene
99-07-0, 3-(Dimethylamino)phenol 108-45-2, 1,3-Diaminobenzene, uses
108-46-3, 1,3-Dihydroxybenzene, uses 137-19-9, 1,5-Dichloro-2,4-
dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 533-31-3,
3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2,
2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3,
1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid
770-25-2, 3-(2-Hydroxyethylamino)phenol 1687-53-2, 5-Amino-2-
methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole
2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2,
5-Amino-2-methylphenol 3131-52-0, 5,6-Dihydroxyindole 5349-76-8,
2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 2-Methyl-1-naphthol
acetate 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0,
3-(2-Hydroxyethylamino)aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-
methylenedioxybenzene 7228-00-4, 2-(3-Hydroxyphenylamino)acetamide
7469-77-4, 2-Methyl-1-naphthol 16867-03-1, 2-Amino-3-hydroxypyridine
26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)-benzoxazine 26021-57-8,
3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0,
N-[3-(Dimethylamino)phenyl]urea 28020-38-4, 2,3-Diamino-6-
methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7,
5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol
55302-96-0, 5-(2-Hydroxyethylamino)-2-methylphenol 61693-42-3,
3-Amino-2,4-dichlorophenol 70643-19-5, 2,4-Diamino-1-(2-
hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene
71500-41-9, 4-Amino-2-[bis(2-hydroxyethyl)amino]-1-ethoxybenzene
71500-42-0, 3-[Bis(2-hydroxyethyl)amino]aniline 76045-64-2,
3-(2-Aminoethylamino)aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-
(methylamino)benzene 80592-80-9, 3-(2,3-Dihydroxypropylamino)-2-
methylphenol 80592-81-0, 3-(2-Hydroxyethylamino)-2-methylphenol
81892-72-0, 1,3-Bis(2,4-diaminophenoxy)propane 83763-47-7,
2-Amino-4-(2-hydroxyethylamino)anisole 84540-47-6, 2,6-Dihydroxy-3,4-
dimethylpyridine 84540-48-7, 2,4-Diaminophenoxyacetic acid 84540-50-1,
3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-
dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol
90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 94082-77-6,

2,4-Diamino-1,5-bis(2-hydroxyethoxy)benzene 104752-50-3,
 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 110102-86-8, 5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-(2-Methoxyethylamino)phenol 146658-65-3, 5-(3-Hydroxypropylamino)-2-methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethylamino)toluene 168092-23-7, Bis(2,4-diaminophenoxy)methane 207923-07-7, 5-Amino-2-methylphenol 244028-58-8, 2,4-Bis(2-hydroxyethylamino)-1,5-dimethoxybenzene 244028-59-9, 5-(2-Hydroxyethylamino)-1,3-benzodioxole 307493-94-3, 1,3-Diamino-4-(3-hydroxypropoxy)benzene 364327-98-0, 1,3-Diamino-4-(2,3-dihydroxypropyl)benzene

RL: TEM (Technical or engineered material use); USES (Uses)
 (couplers for oxidative **hair** dyes contg.
 aminohydroxyphenylacrylamide deriv. developers)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[N-Ethyl-N-(2-hydroxyethyl)amino]aniline 93-05-0, 4-(Diethylamino)aniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 99-98-9, 4-(Dimethylamino)aniline 101-54-2, 4-Anilinoaniline 106-50-3, 1,4-Diaminobenzene, uses 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-73-3, 1,2,4-Trihydroxybenzene 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Bis(2-hydroxyethyl)amino]-2-methylaniline 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-(aminomethyl)benzene 73793-80-3, 1,4-Diamino-2-(hydroxymethyl)benzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-(Dipropylamino)aniline 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-(2-hydroxyethylaminomethyl)phenol 126335-43-1, 1,4-Diamino-2-(hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[N-(4-aminophenyl)-N-(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis(4-aminophenylamino)butane 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 244104-61-8, 1,4-Diamino-2-(2-thienyl)benzene 246244-41-7, 1,4-Diamino-2-(3-thienyl)benzene 306959-12-6, 1,4-Diamino-2-(3-pyridyl)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2,

1,4-Diamino-2-(methoxymethyl)benzene
RL: TEM (Technical or engineered material use); USES (Uses)
(in oxidative **hair** dye compns. contg.
aminohydroxyphenylacrylamide deriv. developers)

IT 364598-99-2P 364599-00-8P 364599-01-9P 467466-31-5P 467466-32-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate; prodn. of aminohydroxyphenylacrylamide deriv. developers
for oxidative **hair** dyes)

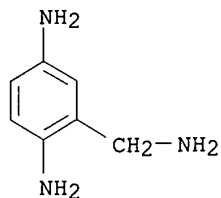
IT 467466-33-7P 467466-34-8P 467466-35-9P 467466-36-0P 467466-37-1P
467466-38-2P 467466-39-3P 467466-40-6P 467466-41-7P 467466-42-8P
467466-43-9P 467466-44-0P 467466-45-1P 467466-46-2P 467466-47-3P
467466-48-4P 467466-49-5P 467466-50-8P 467466-51-9P 467466-52-0P
467466-53-1P 467466-54-2P 467466-55-3P 467466-56-4P 467466-57-5P
467466-58-6P 467466-59-7P 467466-60-0P 467466-61-1P 467466-62-2P
467466-63-3P 467466-64-4P 467466-65-5P 467466-66-6P 467466-67-7P
467466-68-8P 467466-69-9P 467466-70-2P 467466-71-3P 467466-72-4P
467466-73-5P 467466-74-6P 467466-75-7P 467466-76-8P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(prodn. of aminohydroxyphenylacrylamide deriv. developers for oxidative
hair dyes)

IT 72-18-4, L-Valine, reactions 75-04-7, Ethylamine, reactions 75-31-0,
Isopropylamine, reactions 96-20-8, 2-Amino-1-butanol 99-57-0,
2-Amino-4-nitrophenol 107-10-8, Propylamine, reactions 107-11-9,
Allylamine 107-15-3, Ethylenediamine, reactions 109-01-3 109-83-1,
2-(Methylamino)ethanol 109-85-3, 2-Methoxyethylamine 110-73-6,
2-(Ethylamino)ethanol 110-91-8, Morpholine, reactions 123-30-8,
4-Aminophenol 123-75-1, Pyrrolidine, reactions 498-63-5, Prolinol
616-30-8, 3-Amino-1,2-propanediol 617-89-0, Furfurylamine 765-30-0,
Cyclopropylamine 917-54-4, Methylolithium 1001-53-2,
N-Acetylenediamine 2038-03-1, 4-(2-Aminoethyl)morpholine
2605-67-6, Methoxycarbonylmethylenetriphenylphosphorane 2812-47-7,
Prolinamide 3188-13-4, Chloromethyl ethyl ether 4214-76-0,
2-Amino-5-nitropyridine 4795-29-3, Tetrahydrofurfurylamine 5036-48-6,
1-(3-Aminopropyl)imidazole 5382-16-1, 4-Hydroxypiperidine 6168-72-5,
2-Aminopropanol 6638-79-5, N,O-Dimethylhydroxylamine hydrochloride
6859-99-0, 3-Hydroxypiperidine 7575-35-1, 4-[Bis(2-
hydroxyethyl)amino]aniline 7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidone
25739-59-7, 2-Amino-3-hydroxypropionamide 50610-33-8 54840-15-2,
tert-Butyl N-(4-hydroxyphenyl)carbamate 68621-88-5, tert-Butyl
3-aminophenylcarbamate 71026-66-9, tert-Butyl 4-aminophenylcarbamate
155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 325953-40-0
325953-41-1 325953-45-5 325953-46-6 325953-48-8 460084-09-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; prodn. of aminohydroxyphenylacrylamide deriv.
developers for oxidative **hair** dyes)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Henkel Kgaa; DE 19607751 A 1997 HCAPLUS

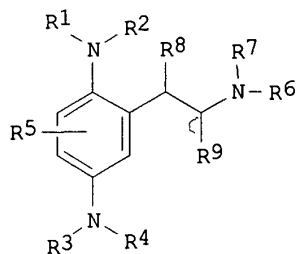
IT ~~67199-87-5~~, 1,4-Diamino-2-(aminomethyl)benzene
RL: TEM (Technical or engineered material use); USES (Uses)
(in oxidative **hair** dye compns. contg.
aminohydroxyphenylacrylamide deriv. developers)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)

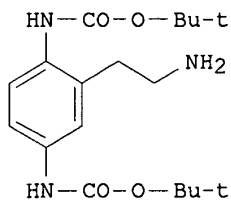


L26 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:750510 HCAPLUS
 DN 137:280569
 TI Preparation of 2-(2-aminoethyl)-1,4-benzenediamines for use in the
 oxidative dyeing of **keratin** fibers
 IN Chassot, Laurent; Braun, Hans-Juergen
 PA Wella A.-G., Germany
 SO Ger. Offen., 20 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM C07C211-51
 ICS C07C211-52; C07C211-53; C07C215-08; C07C217-00; D06P001-645;
 A61K007-13; C07C255-58
 CC 40-6 (Textiles and Fibers)
 Section cross-reference(s): 25, 41
 FAN.CNT 1

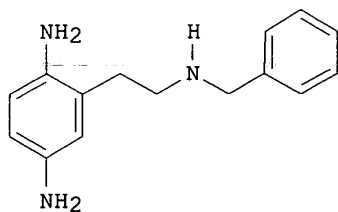
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10112506	A1	20021002	DE 2001-10112506	20010315
PRAI	DE 2001-10112506		20010315		
OS	MARPAT 137:280569				
GI					



I



II



III

- AB Title compds. I [R1-R4 = H, alkyl, hydroxyalkyl, etc.; R5 = H, halo, alkyl, etc.; R6, R7 = H, alkyl, alkene, etc.; R8, R9 =H, alkyl] were prepd. For example, NaBH(OAc)3 mediated reductive amination of benzaldehyde with amine II, prepd. from 2-(2,5-diaminophenyl)ethanol sulfate in 2-steps, followed by amine deprotection, afforded benzenediamine III. In coloration studies of bleached **hair**, 29-examples of compds. I in combination with 4-dyeing developers resulted in a range of **hair** coloring, e.g., a prepn. of compd. III and 1,3-benzenediol produced the color blond.
- ST prepn benzenediamine **keratin hair** oxidative dye
- IT **Hair** preparations
(dyes; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative **hair** dyes)
- IT **Hair** preparations
Pigments, nonbiological
(prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative **hair** dyes)
- IT **Keratins**
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative **hair** dyes)
- IT 463935-72-0P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative **hair** dyes)
- IT 463935-71-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative **hair** dyes)
- IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 91-56-5, 1H-Indole-2,3-dione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 99-07-0, 3-Dimethylaminophenol 108-45-2, 1,3-Diaminobenzene, reactions 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4, 2-[(3-Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro[1,4](2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3, 3-Amino-2,4-dichlorophenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene 71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline 75513-65-4, 1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2, 3-[(2-Aminoethyl)amino]aniline

78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene 80592-80-9,
 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0,
 3-[(2-Hydroxyethyl)amino]-2-methylphenol 81892-72-0,
 1,3-Di(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-
 hydroxyethyl)amino]anisole 84540-48-7, 2,4-Diaminophenoxyacetic acid
 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7,
 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-
 (methylamino)pyridine 94082-77-6, 2,4-Diamino-1,5-di(2-
 hydroxyethoxy)benzene 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene
 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 110102-86-8,
 5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-
 dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene
 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8,
 2,4-Di[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene 137290-78-9,
 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-
 4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol
 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3,
 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5,
 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-
 Methoxyethyl)amino]phenol 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-
 methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethyl)aminotoluene
 168092-23-7, Di(2,4-diaminophenoxy)methane 207923-07-7,
 5-Amino-2-ethylphenol 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-
 benzodioxole

RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT
 (Reactant or reagent); USES (Uses)

(prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling
 agents in oxidative hair dyes)

IT 463935-35-5P 463935-36-6P 463935-37-7P
 463935-38-8P 463935-39-9P 463935-40-2P
 463935-41-3P 463935-42-4P 463935-43-5P
 463935-44-6P 463935-45-7P 463935-46-8P
 463935-47-9P 463935-48-0P 463935-49-1P
 463935-50-4P 463935-51-5P 463935-52-6P
 463935-53-7P, N-[4-[[2-(2,5-Diaminophenyl)ethylamino]methyl]phenyl
]acetamide Hydrochloride 463935-54-8P 463935-55-9P
 463935-56-0P 463935-57-1P 463935-59-3P
 463935-61-7P 463935-63-9P 463935-65-1P,
 2-[2-(2,5-Diaminophenyl)ethylamino]-5-nitrobenzoic acid Hydrochloride
 463935-67-3P 463935-68-4P 463935-69-5P
 463935-70-8P, 4-[2-(2,5-Diaminophenyl)ethylamino]-3-nitrobenzoic
 acid Hydrochloride

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation); USES (Uses)

(product; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as
 coupling agents in oxidative hair dyes)

IT 90-15-3, 1-Naphthalenol 95-88-5, 1-Chloro-2,4-dihydroxybenzene
 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 98-03-3, 2-
 Thiophenecarboxaldehyde 100-10-7, 4-Dimethylaminobenzaldehyde
 100-52-7, Benzaldehyde, reactions 106-50-3, 1,4-Diaminobenzene,
 reactions 107-82-4, 1-Bromo-3-methylbutane 108-46-3,
 1,3-Dihydroxybenzene, reactions 109-65-9, 1-Bromobutane 120-57-0,
 3,4-Methylenedioxybenzaldehyde 122-85-0, 4-Acetylamino-benzaldehyde
 123-08-0, 4-Hydroxybenzaldehyde 123-30-8, 4-Aminophenol 350-46-9,
 4-Fluoronitrobenzene 364-73-8, 5-Bromo-2-fluoronitrobenzene 364-74-9,
 2,5-Difluoronitrobenzene 364-76-1 446-35-5, 2,4-Difluoronitrobenzene
 453-71-4, 4-Fluoro-3-nitrobenzoic acid 498-62-4, Thiophen-3-aldehyde
 500-22-1, Pyridin-3-aldehyde 555-16-8, 4-Nitrobenzaldehyde, reactions

587-04-2, 3-Chlorobenzaldehyde 591-27-5, 3-Aminophenol 608-25-3,
 2-Methyl-1,3-dihydroxybenzene 615-50-9 872-85-5, 4-
 Pyridinecarboxaldehyde 1121-60-4, 2-Pyridinecarboxaldehyde 1493-27-2,
 2-Fluoronitrobenzene 2043-61-0, Cyclohexane-1-aldehyde 2835-95-2,
 5-Amino-2-methylphenol 2835-99-6, 3-Methyl-4-aminophenol 3446-89-7,
 4-Methylsulfanylbzenzaldehyde 4701-17-1, 5-Bromothiophen-2-aldehyde
 5697-02-9, 1-Acetoxy-2-methylnaphthalene 6203-18-5, 4-Dimethylamino-
 zimaldehyde 6921-22-8, 2,3-Difluoronitrobenzene 7304-32-7,
 2-Fluoro-5-nitrobenzoic acid 18791-75-8, 4-Bromothiophen-2-aldehyde
 24424-99-5, Di-tert-butylidicarbonate 51980-54-2, 4-Pyrrolidin-1-
 ylbenzaldehyde 70643-20-8, 1,3-Diamino-4-(2-hydroxyethoxy)benzene
 sulfate 83763-48-8 84540-50-1, 3-Amino-2-chloro-6-methylphenol
 93841-25-9, 2-(2,5-Diaminophenyl)ethanol Sulfate 135043-64-0,
 4-Amino-2-aminomethylphenol dihydrochloride 155601-30-2

334884-86-5 463935-73-1 463935-74-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as
 coupling agents in oxidative hair dyes)

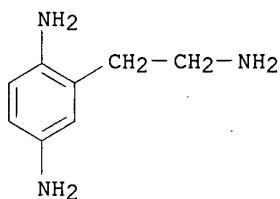
IT **463935-35-5P**

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation); USES (Uses)

(product; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as
 coupling agents in oxidative hair dyes)

RN 463935-35-5 HCAPLUS

CN 1,4-Benzenediamine, 2-(2-aminoethyl)-, monohydrochloride (9CI) (CA INDEX
 NAME)



● HCl

L26 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:733860 HCAPLUS

DN 137:252674

TI Synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivatives and their use
 in oxidative hair dyes

IN Chassot, Laurent; Braun, Hans-Juergen

PA Wella AG, Germany

SO Ger. Offen., 16 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C07C211-51

ICS C07C215-08; C07C217-00; C07C211-52; C07C211-53; D06P001-32;
 D06P001-645; A61K007-13; C07D207-04; C07D211-06; C07D295-03;
 C07D213-04

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 25

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10114084	A1	20020926	DE 2001-10114084	20010322
	WO 2002076923	A1	20021003	WO 2001-EP12124	20011019
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				
	CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				
	GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				
	LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,				
	PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,				
	US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,				
	DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,				
	BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	BR 2001010957	A	20030408	BR 2001-10957	20011019
PRAI	DE 2001-10114084	A	20010322		
	WO 2001-EP12124	W	20011019		
OS	MARPAT 137:252674				
AB	The invention concerns the synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivatives and their use as coupling agents in oxidative hair dyes. The hair preps. further contain developers, other coupling agents and direct dyes. Thus 1,3-diamino-4-(methylaminomethyl)-benzene hydrochloride was synthesized and used as a 1.25 mmol coupler ingredient in a hair dye that contained 1.25 mmol 1,4-diamino benzene as developer. Further ingredients were (g); potassium oleate (8% aq. soln.) 1.0; ammonia (22% aq. soln.) 1.0; ethanol 1.0; ascorbic acid 0.3; water to 100.				
ST	diamino aminomethyl benzene derivate oxidative hair dye				
IT	Dyes				
	(direct; synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivatives and use in oxidative hair dyes)				
IT	Hair preparations				
	(dyes, oxidative; synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivatives and use in oxidative hair dyes)				
IT	460990-06-1P	460990-07-2P	460990-08-3P	460990-09-4P	460990-10-7P
	460990-11-8P	460990-12-9P	460990-13-0P	460990-14-1P	460990-15-2P
	460990-16-3P	460990-17-4P	460990-18-5P	460990-19-6P	460990-20-9P
	RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)				
	(coupling agent; synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivatives and use in oxidative hair dyes)				
IT	83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 123-30-8, 4-Aminophenol 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluoro-phenol 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxybenzene 575-38-2,				

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5,
3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-66-7,
2-Chloro-1,4-diaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 620-17-7
770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1004-74-6,
2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone
1630-11-1, 1,4-Diamino-3,5-diethylbenzene 1687-53-2,
5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2359-52-6,
4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2380-84-9, 7-Hydroxyindole
2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2,
5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5,
2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 3131-52-0,
5,6-Dihydroxyindole 4318-76-7, 2,5-Diaminopyridine 5306-96-7,
1,4-Diamino-2,3-dimethylbenzene 5349-76-8, 2,4-Diamino-1-methoxy-5-
methylbenzene 5697-02-9, 2-Methyl-1-naphthol-acetate 5862-80-6,
4-[(2,3-Dihydroxypropyl)amino]aniline 6201-65-6, 2-Chloro-1,3-
dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline
6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 6941-70-4,
6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7218-02-2,
1,4-Diamino-2,6-dimethylbenzene 7228-00-4, 2-[(3-
Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol
7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 14268-66-7,
3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine
17672-22-9, 2-Amino-6-methylphenol 26011-57-4, 6-Amino-3,4-
dihydro[1,4](2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-
benzoxazine 26455-21-0, N-(3-Dimethylaminophenyl)urea 28020-38-4,
2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline
29785-47-5, 4-Amino-2-(methoxymethyl)phenol 39489-79-7,
5-Amino-2,4-dichloro-phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole
53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-
2-methylphenol 61693-42-3, 3-Amino-2,4-dichloro-phenol 66566-48-1,
4-[(2-Methoxyethyl)amino]aniline 67199-87-5,
1,4-Diamino-2-aminomethylbenzene 70643-19-5, 2,4-Diamino-1-(2-
hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene
71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene
71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline 73793-80-3,
1,4-Diamino-2-hydroxymethylbenzene 75513-65-4, 1,3-Diamino-4-(2,3-
dihydroxypropoxy)benzene 76045-64-2, 3-[(2-Aminoethyl)amino]aniline
78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene 79352-72-0,
4-Amino-2-(aminomethyl)phenol 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-
2-methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol
81892-72-0, 1,3-Di(2,4-diaminophenoxy)propane 83763-47-7,
2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6,
2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxy acetic
acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3,
3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-
hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-
(methylamino)pyridine 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene
94082-77-6, 2,4-Diamino-1,5-di(2-hydroxyethoxy)benzene 97902-52-8,
1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-
hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol
104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 104752-50-3,
1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-
dihydroxy-4-methylbenzene 105293-89-8, 4-Dipropylaminoaniline
109942-17-8, 2,5-Diaminobiphenyl 110102-86-8, 5-Amino-4-chloro-2-
methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine
115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0,
5-Amino-4-fluoro-2-methylphenol 122481-67-8, 2,4-Di[(2-
hydroxyethyl)amino]-1,5-dimethoxybenzene 126335-43-1,

1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-aminophenyl)amino]butane 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethyl)aminotoluene 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168092-23-7, Di(2,4-diaminophenoxy)methane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 207923-07-7, 5-Amino-2-ethylphenol 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 244104-61-8 246244-41-7 306959-12-6 307493-94-3, 1,3-Diamino-4-(3-hydroxypropoxy)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivatives and use in oxidative hair dyes)

IT 74-89-5, Methylamine, reactions 107-11-9, Allylamine 107-15-3, Ethylene diamine, reactions 109-85-3, 2-Methoxyethylamine 110-91-8, Morpholine, reactions 123-75-1, Pyrrolidine, reactions 141-43-5, Ethanolamine, reactions 498-63-5, Prolinol 1001-53-2, N-Acetyl-ethylene diamine 4795-29-3, Tetrahydrofurfuryl amine 5382-16-1, 4-Hydroxypiperidine 6168-72-5, 2-Aminopropanol 6859-99-0, 3-Hydroxypiperidine 24424-99-5, Di-tert-butyl dicarbonate 40499-83-0, 3-Pyrrolidinol 98276-57-4, 2,4-Diaminobenzaldehyde

RL: RCT (Reactant); RACT (Reactant or reagent)

(synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivatives and use in oxidative hair dyes)

IT 364343-82-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivatives and use in oxidative hair dyes)

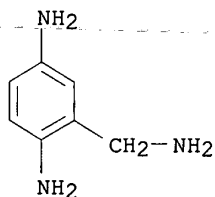
IT 67199-87-5, 1,4-Diamino-2-aminomethylbenzene

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivatives and use in oxidative hair dyes)

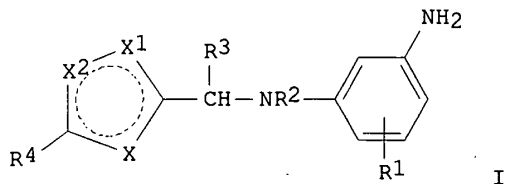
RN 67199-87-5 HCAPLUS

CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:716265 HCAPLUS
 DN 137:249072
 TI Manufacture of N-(heteroarylmethyl)-m-phenylenediamine
 derivative-containing dyes for **keratin** fibers
 IN Chassot, Laurent; Braun, Hans-Juergen
 PA Wella Aktiengesellschaft, Germany
 SO PCT Int. Appl., 46 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 IC ICM C07D333-20
 ICS C07D307-52; C07D233-54; C07D277-28; A61K007-13
 CC 41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
 Sensitizers)
 Section cross-reference(s): 27, 62
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002072568	A1	20020919	WO 2001-EP12053	20011018
	W:		AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
	RW:		GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
	DE 10111936	C1	20021002	DE 2001-10111936	20010313
	EP 1280791	A1	20030205	EP 2001-273957	20011018
	R:		AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR		
	BR 2001010490	A	20030408	BR 2001-10490	20011018
PRAI	DE 2001-10111936	A	20010313		
	WO 2001-EP12053	W	20011018		
OS	MARPAT 137:249072				
GI					



AB A dye developer-coupler combination useful for oxidative dyeing of **keratin** fibers, esp. human hair, comprises N-(heteroarylmethyl)-m-phenylenediamine derivs. [I; R1 = H, C1-4 (hydroxy)alkyl, C1-4 hydroxyalkoxy; R2, R3 = H, C1-6 alkyl; R4 = H, halo, cyano, C1-6 alkyl, C1-4 alkoxy, NO2, amino, etc.; X = S, N, O, CR6, NR5; X1 = S, N, O, CR7, NR5; X2 = S, N, O, CR8, NR5; R5 = H, C1-6 alkyl, Ph, etc.; R6-R8 = any of definitions for R4 (with a proviso)] or their salts

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- as couplers. For example, stirring 1,3-phenylenediamine with (Me3CCO)2O in CH2Cl2 in the presence of NaOH gave 30% tert-Bu (3-aminophenyl)carbamate. Stirring the latter with thiophene-2-carbaldehyde in MeOH in the presence of mol. sieve and treating the reaction mixt. at 0.degree. with BH3.cntdot.THF complex gave a dye coupler N-(thiophen-3-ylmethyl)-1,3-diaminobenzene.cntdot.HCl which, in combination with 1,4-diaminobenzene developer and H2O2 oxidn. agent, dyed human **hair** dark blue.
- ST phenylenediamine heteroarylmethyl manuf oxidative **hair** dye coupler; aminophenylcarbamate ester prepn reductive amination oxidative **hair** dye coupler; thiophenecarbaldehyde reductive amination aminophenylcarbamate ester oxidative **hair** dye coupler
- IT **Hair** preparations
(dyes, oxidative; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)
- IT **Keratins**
RL: MSC (Miscellaneous)
(fibers; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for)
- IT 24424-99-5, Tert-Butyl dicarbonate
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation with phenylenediamine; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)
- IT 108-45-2, 1,3-Phenylenediamine, reactions 70643-19-5,
2-(2,4-Diaminophenoxy)ethanol
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation with tert-Bu dicarbonate; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)
- IT 460059-56-7P 460059-57-8P 460059-58-9P 460059-59-0P 460059-60-3P
460059-61-4P 460059-62-5P 460059-63-6P 460059-64-7P 460059-65-8P
460059-66-9P 460059-67-0P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye coupler; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)
- IT 18210-25-8 460059-68-1 460059-69-2 460059-70-5 460059-71-6
460059-72-7 460059-73-8 460059-74-9 460059-75-0 460059-76-1
RL: TEM (Technical or engineered material use); USES (Uses)
(dye coupler; manuf. of N-(heteroarylmethyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)
- IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methyl-benzene 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, uses 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 66566-48-1, 4-[(2-

Methoxyethyl)amino]aniline 67199-87-5, 1,4-Diamino-2-aminomethylbenzene 73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropylaminoaniline 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-Aminophenyl)amino]butane 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-(2-(Acetylamino)ethoxy)-1,4-diaminobenzene 244104-61-8 246244-41-7 306959-12-6, 1,4-Diamino-2-(pyridin-3-yl)benzene 329320-36-7, 1-(2,5-Diamino-phenyl)ethanol 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene

RL: TEM (Technical or engineered material use); USES (Uses)
(dye developer; manuf. of N-(heteroaryl)methyl-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 68621-88-5P, tert-Butyl (3-aminophenyl)carbamate 325953-48-8P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(manuf. and reductive amination of aldehydes; manuf. of N-(heteroaryl)methyl-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 7722-84-1, Hydrogen peroxide, uses

RL: NUU (Other use, unclassified); USES (Uses)

(oxidn. agent; manuf. of N-(heteroaryl)methyl-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 98-01-1, Furan-2-carbaldehyde, reactions 98-03-3, Thiophene-2-carbaldehyde 498-60-2, Furan-3-carbaldehyde 498-62-4, Thiophene-3-carbaldehyde 4521-33-9, 5-Nitrothiophene-2-carboxaldehyde 10111-08-7, Imidazole-2-carbaldehyde 10200-59-6, Thiazole-2-carboxaldehyde

RL: RCT (Reactant); RACT (Reactant or reagent)

(reductive amination with (aminophenyl)carbamate ester; manuf. of N-(heteroaryl)methyl-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Henkel Kgaa; EP 0024660 A 1981 HCAPLUS
- (2) Henkel Kgaa; EP 0024660 A 1981 HCAPLUS
- (3) Kao Corp; EP 0761214 A 1997 HCAPLUS
- (4) Kao Corp; EP 0761214 A 1997 HCAPLUS
- (5) Oreal; DE 2827658 A 1979 HCAPLUS
- (6) Oreal; DE 2827658 A 1979 HCAPLUS
- (7) Wella Ag; EP 0963982 A 1999 HCAPLUS
- (8) Wella Ag; EP 0963982 A 1999 HCAPLUS

IT 67199-87-5, 1,4-Diamino-2-aminomethylbenzene

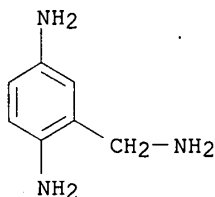
RL: TEM (Technical or engineered material use); USES (Uses)

(dye developer; manuf. of N-(heteroaryl)methyl-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

RN 67199-87-5 HCAPLUS

CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)

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L26 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:714095 HCAPLUS

DN 137:252662

TI Oxidative **hair** dyes containing aldehydes in the dye solution for improving color intensity

PA Wella Ag, Germany

SO Ger. Gebrauchsmusterschrift, 36 pp.

CODEN: GGXXFR

DT Patent

LA German

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20206612	U1	20020919	DE 2002-20206612	20020426
PRAI	DE 2002-20206612		20020426		
OS	MARPAT 137:252662				

AB The invention concerns oxidative **hair** dyes that are mixed before application with a hydrogen peroxide soln. that contains an aldehyde, linear or arom.; the obtained dye soln. excels improved color intensity. Thus a dye mixt. was prepd. that contained 0.01 mmol 1,4-diamino-2-methylbenzene, 0.01 mmol resorcin and the components (g): EDTA disodium salt 0.3; ascorbic acid 0.3; lauryl ether sulfate 2.8; ethanol (96%) 8.0; ammonia (25 % aq. soln.) 9.0; water to 100. To 20 g of the dye mixt. was mixed with 20 g of 6% hydrogen peroxide in 1% aq. glutaraldehyde. The mixt. was applied to bleached **hair** for 10 min at 40.degree.C.

ST oxidn **hair** dye solvent aldehyde color intensity

IT Aldehydes, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(aliph.; oxidative **hair** dyes contg. aldehydes in dye soln. for improving color intensity)

IT Aldehydes, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(arom.; oxidative **hair** dyes contg. aldehydes in dye soln. for improving color intensity)

IT Dyes

(direct; oxidative **hair** dyes contg. aldehydes in dye soln. for improving color intensity)

IT **Hair** preparations

(dyes, oxidative; oxidative **hair** dyes contg. aldehydes in dye soln. for improving color intensity)

IT Cis

pH

(oxidative **hair** dyes contg. aldehydes in dye soln. for

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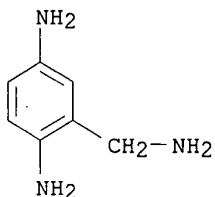
improving color intensity)

IT Aldehydes, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dyes contg. aldehydes in dye soln. for
improving color intensity)

IT 66-25-1, Hexanal 75-07-0, Acetaldehyde, biological studies 78-84-2,
Isobutyraldehyde 80-54-6, p-tert-Butyl-.alpha.-methylhydrocinnamic
aldehyde 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8,
3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8,
5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5,
2,3-Indolinedione 91-68-9, 3-Diethylaminophenol 92-44-4,
2,3-Dihydroxynaphthalene 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline
93-05-0, 4-Diethylaminoaniline 95-70-5, 1,4-Diamino-2-methylbenzene
95-88-5, 1-Chloro-2,4-dihydroxybenzene 96-17-3, 2-Methylbutyraldehyde
97-96-1, 2-Ethylbutyraldehyde 99-07-0, 3-Dimethylaminophenol 99-98-9,
4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 101-86-0,
2-(Phenylmethylene)octanal 103-95-7 106-23-0, 3,7-Dimethyl-6-octenal
106-50-3, 1,4-Diaminobenzene, biological studies 107-75-5,
3,7-Dimethyl-7-hydroxyoctanal 108-45-2, 1,3-Diaminobenzene, biological
studies 110-62-3, Pentanal 111-30-8, Glutaraldehyde 111-71-7,
Heptanal 116-26-7, 2,6,6-Trimethyl-1,3-cyclohexadiene-1-carboxaldehyde
120-57-0, Heliotropin 122-40-7, 2-(Phenylmethylene)heptanal 122-78-1,
Phenylethanal 123-05-7, 2-Ethylhexanal 123-15-9, 2-Methylpentanal
123-30-8, 4-Aminophenol 123-38-6, Propionaldehyde, biological studies
123-72-8, Butanal 124-13-0, Octanal 137-19-9, 1,5-Dichloro-2,4-
dihydroxybenzene 141-27-5, trans-3,7-Dimethyl-2,6-octadienal 141-86-6,
2,6-Diaminopyridine 150-75-4, 4-Methylaminophenol 399-95-1,
4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluorophenol 533-31-3,
3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxybenzene 542-78-9,
Malondialdehyde 557-48-2, (E,Z)-2,6-Nonadienal 575-38-2,
1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 590-86-3,
Isopentanal 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-
methylbenzene 615-66-7, 2-Chloro-1,4-diaminobenzene 619-05-6,
3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol
1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-
pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 1687-53-2,
5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2043-61-0,
Cyclohexanal 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline
2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1,
4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-96-3,
4-Amino-2-methylphenol 2835-99-6, 4-Amino-3-methylphenol 2987-16-8,
3,3-Dimethylbutyraldehyde 3131-52-0, 5,6-Dihydroxyindole 4221-03-8,
5-Hydroxypentanal 4318-76-7, 2,5-Diaminopyridine 5306-96-7,
1,4-Diamino-2,3-dimethylbenzene 5349-76-8, 2,4-Diamino-1-methoxy-5-
methylbenzene 5435-64-3, 3,5,5-Trimethylhexanal 5697-02-9,
2-Methyl-1-naphthol-acetate 5862-80-6, 4-[(2,3-
Dihydroxypropyl)amino]aniline 6265-21-0, 3-[(2-
Hydroxyethyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene
6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7218-02-2,
1,4-Diamino-2,6-dimethylbenzene 7228-00-4, 2-[(3-
Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol
7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 7722-84-1, Hydrogen
peroxide, biological studies 14268-66-7, 3,4-Methylenedioxyaniline
16251-77-7, 3-Phenylbutyraldehyde 16867-03-1, 2-Amino-3-hydroxypyridine
26011-57-4, 6-Amino-3,4-dihydro[1,4](2H)-benzoxazine 26021-57-8,
3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0,
N-(3-Dimethylaminophenyl)-urea 28020-38-4, 2,3-Diamino-6-methoxypyridine
29539-03-5, 5,6-Dihydroxyindoline 29785-47-5, 4-Amino-2-

(methoxymethyl)phenol 30897-75-7, Pinoacetaldehyde 36207-16-6
39489-79-7, 5-Amino-2,4-dichloro-phenol 45514-38-3, 4,5-Diamino-1-methyl-
1H-pyrazole 53222-92-7, 3-Amino-2-methylphenol 53687-29-9
55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3,
3-Amino-2,4-dichloro-phenol 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline
67199-87-5, 1,4-Diamino-2-aminomethylbenzene 68039-49-6,
2,4-Dimethyl-3-cyclohexene-carboxaldehyde 70643-19-5,
2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-
methoxyethoxy)benzene 71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-
ethoxybenzene 71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline
73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 75513-65-4,
1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2,
3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-
methylaminobenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol
80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0,
3-[(2-Hydroxyethyl)amino]-2-methylphenol 81892-72-0,
1,3-Di(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-
hydroxyethyl)amino]anisole 84540-47-6, 2,6-Dihydroxy-3,4-
dimethylpyridine 84540-48-7, 2,4-Diaminophenoxy acetic acid
84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3,
3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-
hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-
(methylamino)pyridine 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene
94082-77-6, 2,4-Diamino-1,5-di(2-hydroxyethoxy)benzene 97902-52-8,
1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-
hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol
104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 104752-50-3,
1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-
dihydroxy-4-methylbenzene 105293-89-8, 4-Dipropylaminoaniline
109942-17-8, 2,5-Diaminobiphenyl 110102-86-8, 5-Amino-4-chloro-2-
methylphenol 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol
111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4,
1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-
methylphenol 122481-67-8, 2,4-Di[(2-hydroxyethyl)amino]-1,5-
dimethoxybenzene 125109-85-5, 3-(3-Isopropylphenyl)butanal
126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6,
1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5,
1,4-Bis[(4-aminophenyl)amino]butane 137290-78-9, 5-Amino-4-methoxy-2-
methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-
methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2,
2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-
hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-
methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol
146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6,
2,6-Bis(2-hydroxyethyl)aminotoluene 155601-16-4, 4,5-Diamino-1-(1-
methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-
pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole
157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole
159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168092-23-7,
Di(2,4-diaminophenoxy)methane 168202-61-7, 4-Amino-3-(hydroxymethyl)-
phenol -207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene
207923-07-7, 5-Amino-2-ethylphenol 244028-59-9, 5-[(2-
Hydroxyethyl)amino]-1,3-benzodioxole 244104-61-8 246244-41-7
306959-12-6, 1,4-Diamino-2-(pyridin-3-yl)benzene 307493-94-3,
1,3-Diamino-4-(3-hydroxypropoxy)benzene 329320-36-7,
1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-
methoxymethylbenzene 365533-47-7 460331-12-8
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oxidative **hair** dyes contg. aldehydes in dye soln. for improving color intensity)
 IT **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative **hair** dyes contg. aldehydes in dye soln. for improving color intensity)
 RN **67199-87-5** HCAPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:714094 HCAPLUS
 DN 137:252661
 TI Oxidative **hair** dyes containing 2,3-diaminophenol derivatives as coupling agents
 PA Wella Ag, Germany
 SO Ger. Gebrauchsmusterschrift, 42 pp.
 CODEN: GGXXFR
 DT Patent
 LA German
 IC ICM A61K007-13
 CC 62-3 (Essential Oils and Cosmetics)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20206274	U1	20020919	DE 2002-20206274	20020420
PRAI	DE 2002-20206274		20020420		
OS	MARPAT 137:252661				

AB The invention concerns oxidative **hair** dyes that contain 2,3-diaminophenol derivs. as coupling agents; further the dyes contain developers and direct dyes. Thus 3-amino-2-(2-hydroxyethylamino)phenol dihydrochloride was synthesized and 1.25 mmol of the compd. was used in a **hair** dye compn. that further contained: 1.25 mmol 2.5-diaminotoluene sulfate; 10.0 g lauryl ether sulfate; 9.0 g ammonia (22% soln.); 7.8 g ethanol; 0.3 g ascorbic acid; 0.3 g EDTA disodium salt; water to 100 g.

ST diaminophenol derivate coupler oxidn **hair** dye
 IT Dyes

(direct; oxidative **hair** dyes contg. 2,3-diaminophenol derivs. as coupling agents)

IT **Hair** preparations
 (dyes, oxidative; oxidative **hair** dyes contg. 2,3-diaminophenol derivs. as coupling agents)

IT Coupling agents

pH
 (oxidative **hair** dyes contg. 2,3-diaminophenol derivs. as coupling agents)

IT 7732-18-5, Water, properties
RL: PRP (Properties)
(casreact)

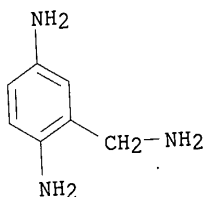
IT 59649-56-8, 2,3-Diaminophenol
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(derivs.; oxidative hair dyes contg. 2,3-diaminophenol
derivs. as coupling agents)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[Ethyl(2-
hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6
95-70-5, 1,4-Diamino-2-methylbenzene 99-98-9, 4-Dimethylaminoaniline
101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological
studies 533-73-3, 1,2,4-Trihydroxybenzene 611-24-5,
2-Methylaminophenol 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6,
2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone
1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6,
4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-98-5,
6-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7,
1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-
Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene
7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1,
4-[Di(2-hydroxyethyl)amino]aniline 17672-22-9, 6-Amino-2-methylphenol
45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 53981-24-1 53981-25-2
66566-48-1, 4-[(2-Methoxyethyl)amino]aniline 67199-87-5,
1,4-Diamino-2-aminomethylbenzene 73793-80-3, 1,4-Diamino-2-
hydroxymethylbenzene 87700-93-4 93841-24-8, 1,4-Diamino-2-(2-
hydroxyethyl)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene
104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104752-48-9,
4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropylaminoaniline
109942-17-8, 2,5-Diaminobiphenyl 114484-31-0 122196-12-7
126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 155601-16-4,
4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5,
4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0,
4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1,
1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7,
1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 207568-58-9,
2-[2-(Acetylamin)ethoxy]-1,4-diaminobenzene 244104-61-8 246244-41-7
306959-12-6 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene
337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 460049-84-7
460049-85-8 460049-87-0 460049-88-1 460049-89-2 460049-90-5
460049-92-7 460049-94-9 460049-96-1 460049-98-3 460050-00-4
460050-02-6 460050-04-8 460050-08-2 460050-09-3 460050-10-6
460050-11-7 460050-12-8
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dyes contg. 2,3-diaminophenol derivs. as
coupling agents)

IT 460050-15-1P 460050-16-2P 460050-17-3P 460050-18-4P 460050-19-5P
460050-20-8P 460050-21-9P 460050-22-0P 460050-23-1P 460050-25-3P
460050-27-5P 460050-28-6P 460050-29-7P 460050-30-0P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
study); PREP (Preparation); USES (Uses)
(oxidative hair dyes contg. 2,3-diaminophenol derivs. as
coupling agents)

IT 109-85-3, 2-Methoxyethylamine 110-91-8, Morpholine, reactions
123-75-1, Pyrrolidine, reactions 141-43-5, 2-Ethanolamine, reactions
556-53-6, n-Propylamine hydrochloride 557-66-4, Ethylamine hydrochloride
616-30-8, 3-Amino-1,2-propanediol 929-06-6, 2-(2-Hydroxyethoxy)-
ethylamine 5382-16-1, 4-Piperidinol 57260-73-8 62848-20-8,
3-Methoxypyrrolidine 68621-88-5 71026-66-9 101935-40-4,

2-Bromo-3-nitrophenol 460050-14-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxidative **hair** dyes contg. 2,3-diaminophenol derivs. as
 coupling agents)
 IT 460050-13-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (oxidative **hair** dyes contg. 2,3-diaminophenol derivs. as
 coupling agents)
 IT 67199-87-5, 1,4-Diamino-2-aminomethylbenzene
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative **hair** dyes contg. 2,3-diaminophenol derivs. as
 coupling agents)
 RN 67199-87-5 HCAPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



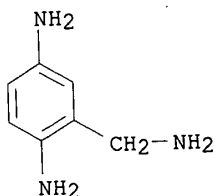
L26 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:615598 HCAPLUS
 DN 137:174510
 TI Oxidative **hair** dyes containing 1,3-diamino-4-heteroarylbenzene
 derivatives and novel 1,3-diamino-4-heteroarylbenzene derivatives
 IN Chassot, Laurent; Braun, Hans-Juergen
 PA Wella Aktiengesellschaft, Germany
 SO PCT Int. Appl., 33 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 IC ICM C07D333-20
 ICS C07D277-28; A61K007-13
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 27

FAN.CNT 1		KIND DATE		APPLICATION NO. DATE	
PATENT NO.					
PI	WO 2002062783	A1	20020815	WO 2001-EP10411	20010910
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG EP 1261599 A1 20021204 EP 2001-960727 20010910 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,					

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 BR 2001009607 A 20030204 BR 2001-9607 20010910
 US 2003093867 A1 20030522 US 2002-169120 20020626
 PRAI DE 2001-10104768 A 20010202
 WO 2001-EP10411 W 20010910
 OS MARPAT 137:174510
 AB The invention concerns oxidative **hair** dyes that contg.
 1,3-diamino-4-heteroarylbenzene derivs. or their physiol. acceptable,
 water-sol. salts as coupling dyes; the **hair** dyes further contain
 developers, other coupling dyes and direct dyes. Thus
 1,3-Diamino-4-(thiophene-2-yl)benzene hydrochloride was synthesized and
 used in a **hair** dye prepn. as a 0.1 g ingredient; other
 components were (g): 1,4-diaminobenzene 0.30; 1,3-dihydroxy benzene 0.20 ;
 3-aminophenol 0.05; potassium oleate (8% aq.soln.) 10.0; ammonia (22%
 aq.soln.) 10.0; ethanol 10.0; ascorbic acid 0.3; water to 100.0.
 ST oxidative **hair** dye diamino heteroaryl benzene deriv
 IT Dyes
 (direct; oxidative **hair** dyes contg. 1,3-diamino-4-
 heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene
 derivs.)
 IT **Hair** preparations
 (dyes, oxidative; oxidative **hair** dyes contg.
 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-
 heteroarylbenzene derivs.)
 IT pH
 (oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)
 IT 7732-18-5, Water, properties
 RL: PRP (Properties)
 (casreact)
 IT 14221-01-3 72287-26-4
 RL: CAT (Catalyst use); USES (Uses)
 (oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)
 IT 89-57-6, 5-Aminosalicylic acid 90-15-3, 1-Naphthol 92-65-9,
 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline
 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5,
 1-Chloro-2,4-dihydroxy benzene 99-98-9, 4-Dimethylaminoaniline
 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological
 studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3,
 1,3-Dihydroxy benzene, biological studies 123-30-8, 4-Aminophenol
 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluoro-phenol
 399-96-2, 4-Amino-2-fluoro-phenol 533-31-3, 3,4-Methylenedioxy phenol
 591-27-5, 3-Aminophenol 608-25-3, 2-Methyl-1,3-dihydroxy benzene
 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-
 Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone
 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6,
 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-95-2,
 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5,
 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7,
 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene
 5697-02-9, 1-Acetoxy-2-methyl-naphthalene 5862-80-6,
 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-
 dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1,
 4-[Di(2-hydroxyethyl)amino]aniline 7722-84-1, Hydrogen peroxide,
 biological studies 17672-22-9, 2-Amino-6-methylphenol 26455-21-0,
 N-(3-Dimethylamino)phenylurea 29785-47-5, 4-Amino-2-
 (methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole

- 56216-28-5, 3,5-Diamino-2,6-dimethoxy-pyridine dihydrochloride
 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**,
 1,4-Diamino-2-aminomethylbenzene 70643-20-8, 1,3-Diamino-4-(2-
 hydroxyethoxy)-benzene sulfate 73793-80-3, 1,4-Diamino-2-
 hydroxymethylbenzene 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane
 tetrahydrochloride 79352-72-0, 4-Amino-2-(aminomethyl)phenol
 83763-48-8, 2-Amino-4-(2-hydroxyethylamino)-anisole sulfate 84540-50-1,
 3-Amino-2-chloro-6-methylphenol 90817-34-8, 3-Amino-2-methylamino-6-
 methoxy-pyridine 94158-14-2, 4-(2-Hydroxyethyl)amino-1,2-
 methylenedioxybenzene hydrochloride 97902-52-8, 1,4-Diamino-2-(1-
 methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol
 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9,
 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropylaminoaniline
 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-[(2-
 hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-
 hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-
 hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-
 Aminophenyl)amino]butane 155601-16-4, 4,5-Diamino-1-[(1-methylethyl)-1H-
 pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole
 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole
 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole
 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7,
 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-
 1,4-diaminobenzene 217311-43-8, 2,4-Diamino-5-fluoro-toluene sulfate
 244104-61-8 246244-41-7 306959-12-6 329320-36-7,
 1-(2,5-Diaminophenyl)ethanol 337906-36-2, 1,4-Diamino-2-
 methoxymethylbenzene 350482-01-8 350482-02-9, 5-Amino-4-fluoro-2-
 methylphenol sulfate 446234-23-7 446234-24-8
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)
 IT 108609-83-2P 446234-20-4P 446234-21-5P 446234-22-6P
 RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation);
 BIOL (Biological study); PREP (Preparation); USES (Uses)
 (oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)
 IT 364343-81-7P 446032-91-3P
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent)
 (oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)
 IT 128-08-5, N-Bromosuccinimide 1003-09-4, 2-Bromo thiophene 3034-53-5,
 2-Bromo-thiazole 13195-50-1, 2-Bromo-5-nitro-thiophene 14282-76-9,
 2-Bromo-3-methyl-thiophene 59255-77-5 73183-34-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)
 RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Air Prod. & Chem; EP 0272650 A 1988 HCAPLUS
 (2) Bugaut, A; US 4324553 A 1982 HCAPLUS
 (3) Gonzalez, V; QUIM ANAL (BARCELONA) 1986, V5(3), P335 HCAPLUS
 (4) Oreal; EP 0667143 A 1995 HCAPLUS
 (5) Wella Ag; DE 3132885 A 1983 HCAPLUS
 IT **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

RN 67199-87-5 HCAPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:615366 HCAPLUS
 DN 137:159005
 TI Oxidative **hair** dyes containing (1.1'-biphenyl)-2,4-diamine derivatives in addition to novel (1.1'-biphenyl)-2,4-diamine-derivatives
 IN Chassot, Laurent; Braun, Hans-Juergen
 PA Wella Aktiengesellschaft, Germany
 SO PCT Int. Appl., 45 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 IC ICM A61K007-13
 ICS C07C215-74; C07C217-80; C07C209-52; C07C255-58; C07C225-22; C07C323-31; C07D317-58
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 25

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002062307	A1	20020815	WO 2001-EP10409	20010910
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10104770	C1	20021017	DE 2001-10104770	20010202
BR 2001009744	A	20030204	BR 2001-9744	20010910
PRAI DE 2001-10104770	A	20010202		
WO 2001-EP10409	W	20010910		

OS MARPAT 137:159005

AB The invention relates to coloring agents **hair** contg. [1.1'-biphenyl]-2,4-diamine derivs. or their physiol. acceptable water sol. salts in addn. to novel [1.1'-biphenyl]-2,4-diamine derivs. Thus biphenyl-2,4,4'-triamine hydrochloride was synthesized and use in a **hair** dye as a 1.25 mmol component that further contained: 1.25 mmol 1,4-diaminobenzene; potassium oleate (8% aq.soln.) 1.0 g; ammonia (22% aq.soln.) 1.0 g; ethanol 1.0 g; ascorbic acid 0.3 g; water to 100 g.

ST oxidative **hair** dye biphenyl diamine deriv

IT **Hair** preparations

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

(dyes, oxidative; oxidative hair dyes contg.
(1.1'-biphenyl)-2,4-diamine derivs. in addn. to novel
(1.1'-biphenyl)-2,4-diamine-derivs.)

IT 7732-18-5, Water, properties
RL: PRP (Properties)
(casreact)

IT 14221-01-3, Pd(pph3)4 72287-26-4
RL: CAT (Catalyst use); USES (Uses)
(oxidative hair dyes contg. (1.1'-biphenyl)-2,4-diamine
derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

IT 89-57-6, 5-Aminosalicylic acid 92-52-4D, Biphenyl, derivs. 92-65-9,
4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline
95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 99-98-9,
4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3,
1,4-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol
150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluoro-phenol
399-96-2, 4-Amino-2-fluoro-phenol 615-66-7, 2-Chloro-1,4-diaminobenzene
1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-
pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6,
4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-69-0,
[1,1'-Biphenyl]-2,4,4'-triamine 2835-96-3, 4-Amino-2-methylphenol
2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol
4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-
dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline
6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2,
1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-
hydroxyethyl)amino]aniline 7722-84-1, Hydrogen peroxide, biological
studies 16069-32-2, Biphenyl-2,4-diamine 17672-22-9,
2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol
45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 66566-48-1,
4-[(2-Methoxyethyl)amino]aniline 67199-87-5,
1,4-Diamino-2-aminomethylbenzene 73793-80-3, 1,4-Diamino-2-
hydroxymethylbenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol
93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 96886-30-5
97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6,
4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7,
4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-
Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropylaminoaniline
109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-[(2-
hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-
hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-
hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-
Aminophenyl)amino]butane 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-
pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole
157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole
157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole
159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7,
4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-
1,4-diaminobenzene 244104-61-8 246244-41-7 306959-12-6
337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 443753-63-7,
4-Benzo[1,3]dioxol-5-yl-benzene-1,3-diamine 446033-16-5 446033-19-8
446033-20-1
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dyes contg. (1.1'-biphenyl)-2,4-diamine
derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

IT 446032-92-4P 446032-93-5P 446032-95-7P 446032-96-8P 446032-97-9P
446032-98-0P 446032-99-1P 446033-00-7P 446033-02-9P 446033-04-1P
446033-06-3P 446033-08-5P 446033-10-9P 446033-12-1P 446033-13-2P

RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation);
 BIOL (Biological study); PREP (Preparation); USES (Uses)
 (oxidative **hair** dyes contg. (1.1'-biphenyl)-2,4-diamine
 derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

IT 364343-81-7P 446032-91-3P
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent)
 (oxidative **hair** dyes contg. (1.1'-biphenyl)-2,4-diamine
 derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

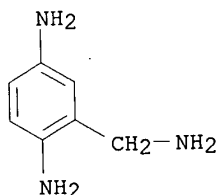
IT 104-95-0 106-38-7, 4-Bromotoluene 106-39-8, 4-Bromochlorobenzene
 106-40-1, 4-Bromo-aniline 106-41-2, 4-Bromophenol 108-86-1,
 Bromobenzene, reactions 128-08-5 402-43-7, 4-Bromo-
 trifluoromethylbenzene 460-00-4, 4-Fluoro-1-bromobenzene 576-22-7,
 Benzene, 2-bromo-, 1,3-dimethyl- 577-19-5, 2-Bromonitrobenzene
 586-78-7, 4-Bromonitrobenzene 591-20-8, 3-Bromophenol 623-00-7,
 4-Bromobenzonitrile 2142-63-4, 3-Bromoacetophenone 2398-37-0,
 3-Bromoanisole 2635-13-4 59255-77-5 73183-34-3 446032-94-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxidative **hair** dyes contg. (1.1'-biphenyl)-2,4-diamine
 derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE
 (1) Aravamuthan, S; JOURNAL OF APPLIED ELECTROCHEMISTRY 1989, V19(6), P897
 HCAPLUS
 (2) Bayer Ag; DE 2232095 A 1974 HCAPLUS
 (3) Blank, W; US 3619399 A 1971 HCAPLUS
 (4) Sandoz Ltd; GB 1425064 A 1976 HCAPLUS
 (5) Wella Ag; WO 9959527 A 1999 HCAPLUS

IT 67199-87-5, 1,4-Diamino-2-aminomethylbenzene
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative **hair** dyes contg. (1.1'-biphenyl)-2,4-diamine
 derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

RN 67199-87-5 HCAPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:607525 HCAPLUS
 DN 137:159001

TI Oxidative **hair** dyes containing-1,3-diamino-5-heteroaryl benzene
 derivatives and synthesis of these dyes
 PA Wella Ag, Germany
 SO Ger. Gebrauchsmusterschrift, 36 pp.
 CODEN: GGXXFR
 DT Patent
 LA German
 IC ICM C07D333-06

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

ICS C07D333-26; C07D277-02; A61K007-13; C07D307-34; C07D207-30;
C07D233-54
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 27

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20203720	U1	20020814	DE 2002-20203720	20020307
	DE 10114425	C1	20020822	DE 2001-10114425	20010324
PRAI	DE 2001-10114425	IA	20010324		
OS	MARPAT 137:159001				

AB The invention concerns oxidative **hair** dyes that contg.
1,3-diamino-4-heteroarylbenzene derivs. or their physiol. acceptable,
water-sol. salts as coupling agents and developers; the **hair**
dyes also can contain other coupling dyes and direct dyes. Thus
1,3-Diamino-5-(thiophene-2-yl)benzene hydrochloride was synthesized and
used in a **hair** dye prepn. as a 1.25 mmol ingredient; other
components were: 1,4-diaminobenzene 1.25 mmol; potassium oleate (8%
aq.soln.) 1.0 g; ammonia (22% aq.soln.) 1.0 g; ethanol 1.0 g; ascorbic
acid 0.3 g; water to 100.0.

ST oxidative **hair** dye diamino heteroaryl benzene deriv

IT Dyes

(direct; oxidative **hair** dyes contg. 1,3-diamino-4-
heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene
derivs.)

IT **Hair** preparations

(dyes, oxidative; oxidative **hair** dyes contg.
1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-
heteroarylbenzene derivs.)

IT pH

(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene
derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 7732-18-5, Water, properties

RL: PRP (Properties)

(casreact)

IT 14221-01-3 72287-26-4

RL: CAT (Catalyst use); USES (Uses)

(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene
derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-
pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3,
1-Naphthol 91-56-5, 2,3-Indoline dione 91-68-9, 3-Diethylaminophenol
92-44-4, 2,3-Dihydroxynaphthalene 95-55-6, 2-Aminophenol 95-88-5,
1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 108-45-2,
1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene,
biological studies 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene
141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol
575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene
591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene
619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-
Hydroxyethyl)amino]phenol 1687-53-2, 5-Amino-2-methoxyphenol
1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1,
6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2,
5-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 3131-52-0,
5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene
5697-02-9, 2-Methyl-1-naphthol-acetate 6201-65-6, 2-Chloro-1,3-
dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline
6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4,

2-[(3-Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol
 7722-84-1, Hydrogen peroxide, biological studies 14268-66-7,
 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine
 17672-22-9, 2-Amino-6-methylphenol 26011-57-4, 6-Amino-3,4-
 dihydro[1,4](2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-
 benzoxazine 26455-21-0, N-(3-Dimethylaminophenyl) urea 28020-38-4,
 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline
 39489-79-7, 5-Amino-2,4-dichloro-phenol 45514-38-3, 4,5-Diamino-1-methyl-
 1H-pyrazole 53222-92-7, 3-Amino-2-methylphenol 55302-96-0,
 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3,
 3-Amino-2,4-dichloro-phenol 70643-19-5, 2,4-Diamino-1-(2-
 hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene
 71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene
 71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline 75513-65-4,
 1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2,
 3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-
 methylaminobenzene 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-
 methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol
 81892-72-0, 1,3-Di(2,4-diaminophenoxy)propane 83763-47-7,
 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6,
 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxy acetic
 acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3,
 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-
 hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-
 (methylamino)pyridine 94082-77-6, 2,4-Diamino-1,5-di(2-
 hydroxyethoxy)benzene 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene
 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 110102-86-8,
 5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-
 dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene
 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8,
 2,4-Di[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene 137290-78-9,
 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-
 4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol
 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3,
 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5,
 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-
 Methoxyethyl)amino]phenol 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-
 methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethyl)aminotoluene
 168092-23-7, Di(2,4-diaminophenoxy)methane 207923-07-7,
 5-Amino-2-ethylphenol 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-
 benzodioxole 307493-94-3, 1,3-Diamino-4-(3-hydroxypropoxy)benzene
 446017-84-1 446017-85-2 446017-86-3 446017-87-4 446017-88-5
 446017-89-6 446017-90-9 446017-91-0 446017-92-1 446017-93-2
 446017-94-3 446017-95-4 446017-96-5 446017-97-6 446017-98-7
 446017-99-8 446018-00-4 446018-01-5 446018-02-6 446018-03-7
 446018-04-8 446018-05-9 446018-06-0 446018-07-1 446018-08-2
 446018-09-3 446018-10-6 446018-11-7 446018-12-8 446018-13-9
 446018-14-0 446018-15-1 446018-16-2 446018-17-3

RI: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 446017-78-3P 446017-79-4P 446017-80-7P 446017-81-8P 446017-82-9P
 446017-83-0P

RI: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation);
 BIOL (Biological study); PREP (Preparation); USES (Uses)

(oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

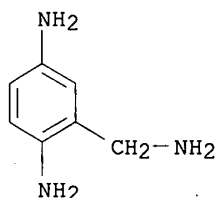
IT 364038-88-0P 443753-62-6P

- RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)
- IT 872-31-1, 3-Bromo thiophene 1003-09-4, 2-Bromo thiophene 3034-53-5,
2-Bromo-thiazole 13195-50-1, 2-Bromo-5-nitro-thiophene 14282-76-9,
2-Bromo-3-methyl-thiophene 33786-90-2 40032-73-3, 3-Bromo-2-chloro-thiophene 53119-60-1, 2-Bromo-4-methyl-thiophene 73183-34-3
- RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidative **hair** dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)
- IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-70-5,
1,4-Diamino-2-methylbenzene 99-98-9, 4-Dimethylaminoaniline 101-54-2,
4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 399-95-1,
4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluoro-phenol 615-66-7,
2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1,
1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-96-3, 4-Amino-2-methylphenol 2835-99-6,
4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7,
1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1,
4-[Di(2-hydroxyethyl)amino]aniline 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline 67199-87-5, 1,4-Diamino-2-aminomethylbenzene 73793-80-3,
1,4-Diamino-2-hydroxymethylbenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7,
4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropylaminoaniline 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-Aminophenyl)amino]butane 155601-16-4, 4,5-Diamino-1-[(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7,
4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 244104-61-8 246244-41-7 306959-12-6
329320-36-7, 1-(2,5-Diaminophenyl)ethanol 337906-36-2,
1,4-Diamino-2-methoxymethylbenzene
- RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dyes contg. 1,3-diamino-5-heteroaryl benzene derivs. and synthesis of dyes)
- IT 446017-77-2P
- RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(oxidative **hair** dyes contg. del 71,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)
- IT 67199-87-5, 1,4-Diamino-2-aminomethylbenzene
- RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dyes contg. 1,3-diamino-5-heteroaryl benzene

derivs. and synthesis of dyes)

RN 67199-87-5 HCAPLUS

CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:574866 HCAPLUS

DN 137:129534

TI Primary intermediates for oxidative coloration of hair

IN Lim, Mu-Ill; Pan, Yuh-guo

PA Clairol Incorporated, USA

SO PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K

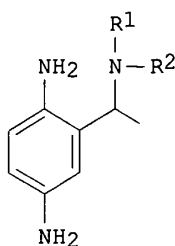
CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 25

FAN.CNT 1

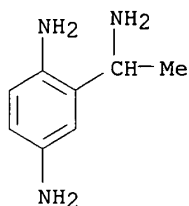
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002058632	A2	20020801	WO 2002-US1621	20020118
	WO 2002058632	A3	20030403		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	US 2002144357	A1	20021010	US 2002-52321	20020118
PRAI	US 2001-263567P	P	20010123		
OS	MARPAT 137:129534				
GI					

applicants



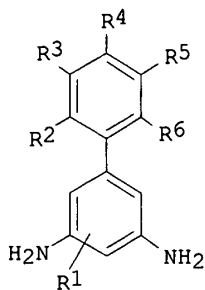
- AB Primary intermediates of **hair** coloring compns. of **hair** oxidative of **hair** are compds. of the formula [I]: where R1 and R2 are each individually selected from a hydrogen atom, a C1 to C3 alkyl group, a C1 to C5 mono or dihydroxyalkyl group, Ph or benzyl optionally substituted with an alkoxy group, or R1 and R2 together with the nitrogen atom to which they are attached form a piperazine, piperidine, imidazole, or morpholine ring.
- ST **hair** dye primary intermediate oxidn benzenediamine
- IT Oxidizing agents
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)
- IT **Hair** preparations
(dyes; 2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)
- IT 90-15-3, 1-Naphthol 95-55-6, 2-Aminophenol 95-70-5, 2-Methylbenzene-1,4-diamine 95-88-5, 4-Chlorobenzene-1,3-diol 106-50-3, p-Phenylenediamine, biological studies 108-46-3, Resorcinol, biological studies 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 591-27-5, 3-Aminophenol 608-25-3, 2-Methylbenzene-1,3-diol 1004-74-6, Pyrimidinetetramine 2380-86-1, 1H-Indol-6-ol 2835-95-2, 5-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 7469-77-4, 2-Methyl-1-naphthol 7575-35-1 16867-03-1, 2-Aminopyridin-3-ol 17672-22-9, 2-Amino-6-methylphenol 26021-57-8 41927-22-4, 4-Methyl-2-phenyl-2,4-dihydro-3H-pyrazol-3-one 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-(2-Hydroxyethylamino)-2-methylphenol 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol 83763-47-7 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 94082-77-6 129697-50-3 131311-66-5 155601-17-5 157469-54-0 220264-60-8 307493-94-3, 3-(2,4-Diaminophenoxy)-1-propanol 329320-36-7
- RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)
- IT **444177-65-5P 444177-66-6P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)
- IT 32580-41-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)
- IT 444177-67-7P 444177-68-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of hair)
IT 444177-65-5P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of hair)
RN 444177-65-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(1-aminoethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:553048 HCAPLUS
DN 137:109116
TI (1,1'-Biphenyl)-3,5-diamine derivatives containing coloring agent as well as new (1,1'-biphenyl)-3,5-diamine derivatives for the oxidative coloring of keratin fibers
PA Wella A.-G., Germany
SO Ger. Gebrauchsmusterschrift, 41 pp.
CODEN: GGXXFR
DT Patent
LA German
IC ICM C07C211-51
ICS C07C215-68; C07C217-80; C07C225-22; C07C255-49; C07C323-31; D06P001-32; C07D317-48
CC 25-4 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 40, 41
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20202609	U1	20020725	DE 2002-20202609	20020220
PRAI	DE 2001-10111937	IA	20010313		
OS	MARPAT 137:109116				
GI					



I

- AB A medium for the oxidative coloring of **keratin** fibers on the basis of a developer/generator substance coupling agent combination, is characterized by the fact that it has as coupling agent at least 1,1'-Biphenyl-3,5-diamine deriv., e.g., I [R1 = H, halogen, C1-4-alkoxy, C1-4-hydroxyalkoxy, a C1-6-alkyl, C1-4-alkylthio, CF3, SiMe3, C1-4-hydroxyalkyl, C2-4-dihydroxyalkyl; R2, R3, R4, R5, R6 = H, halogen, CN, OH, C1-4-alkoxy, C1-4-hydroxyalkoxy, C1-6-alkyl, C1-4-alkylthio, SH, NO2, NH2, C1-4-monoalkylamino, di(C1-4-alkyl)amino, CF3, CHO, C(O)Me, C(O)CF3, a SiMe3, C1-4-hydroxyalkyl, C2-4-dihydroxyalkyl, -CH:CHR7, (CH2)pCO2R8, (CH2)pR9, a -C(R10):NR11, CH(R13)NR14R15; R2R3, R5R6 = OCH2O; R7 = H, NO2, CO2R8, -C(O)Me; R8, R10, R13 = H, C1-4-alkyl; R9 = NH2, CN; R11, R14, R15 = H, OH, C1-4-alkyl, C1-4-hydroxyalkyl, C2-4-dihydroxyalkyl, C6H4R12; R12 = H, NH2, OH; p = 1, 2, 3 or 4] or its salt with an inorg. or org. acid have no inversion center. Thus, (1,1'-Biphenyl)-3,5-diamine hydrochloride (I.cntdot.HCl; R1 - R6 = H) was prepd. from 5-bromo-1,3-phenylenediamine via protection with di(tert-butyl) dicarbonate, palladium-catalyzed coupling with 4,4,5,5,4',4',5',5'-octamethyl[2,2']bi[[1,3,2]dioxaborolanyl], palladium-catalyzed coupling of the resulting borolane with PhBr, and deprotection with HCl in EtOH.
- ST biphenyldiamine deriv coloring agent prepn; **keratin** fiber oxidative coloring agent biphenyldiamine deriv
- IT Amines, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(arom., biphenyl diamines; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)
- IT Aromatic compounds
RL: SPN (Synthetic preparation); PREP (Preparation)
(biphenyl diamines; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)
- IT Hair preparations
(dyes; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)
- IT **Keratins**
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(fibers, oxidative coloring of; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)
- IT Coloring materials
(prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)
- IT 73183-34-3, 4,4,5,5,4',4',5',5'-Octamethyl-[2,2']bi[[1,3,2]dioxaborolanyl]

- RL: RCT (Reactant); RACT (Reactant or reagent)
 (Pd.-catalyzed coupling with N,N'-Bis(BOC)phenylenediamine; prepn. of
 (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the
 oxidative coloring of **keratin** fibers)
- IT 104-95-0, 1-Bromo-4-(methylsulfanyl)benzene 106-38-7, 4-Bromotoluene
 106-40-1, 4-Bromoaniline 106-41-2, 4-Bromophenol 108-86-1,
 Bromobenzene, reactions 402-43-7, 4-Bromo-.alpha.,.alpha.,.alpha.-
 trifluorotoluene 460-00-4, 4-Bromo-1-fluorobenzene 576-22-7,
 2-Bromo-m-xylene 577-19-5, 2-Bromo-1-nitrobenzene 586-78-7,
 4-Bromo-1-nitrobenzene 591-20-8, 3-Bromophenol 623-00-7,
 4-Bromobenzonitrile 2142-63-4, 3-Bromoacetophenone 2398-37-0,
 3-Bromoanisole 2635-13-4, 5-Bromobenzo[1,3]dioxole 29682-39-1,
 1-Bromo-2-chloro-4-nitrobenzene
- RL: RCT (Reactant); RACT (Reactant or reagent)
 (Pd.-catalyzed coupling with [[1,3,2]dioxaborolan-1-
 yl]phenylenediamine; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as
 coloring agents for the oxidative coloring of **keratin** fibers)
- IT 89-57-6, 5-Aminosalicylic acid 90-15-3, 1-Naphthol 92-65-9,
 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-(Diethylamino)aniline
 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-72-7,
 2-Chloro-1,4-dimethylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene
 99-98-9, 4-(Dimethylamino)aniline 101-54-2, 4-(Phenylamino)aniline
 106-50-3, 1,4-Diaminobenzene, biological studies 108-46-3,
 1,3-Dihydroxybenzene, biological studies 123-30-8, 4-Aminophenol
 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol
 399-96-2, 4-Amino-2-fluorophenol 533-31-3, 3,4-(Methylenedioxy)phenol
 591-27-5, 3-Aminophenol 608-25-3, 2-Methyl-1,3-dihydroxybenzene
 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-
 pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6,
 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-95-2,
 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5,
 2-Amino-5-methylphenol 2835-99-6, 3-Methyl-4-aminophenol 4318-76-7,
 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene
 5697-02-9, 1-Acetoxy-2-methylnaphthalene 5862-80-6, 4-[(2,3-
 Dihydroxypropyl)amino]aniline 6369-59-1, 2,5-Diaminotoluene sulfate
 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2,
 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-
 hydroxyethyl)amino]aniline 17672-22-9, 2-Amino-6-methylphenol
 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3,
 4,5-Diamino-1-methyl-1H-pyrazole 58262-44-5, N,N-Bis(2-hydroxyethyl)-p-
 phenylenediamine sulfate 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline
67199-87-5, 1,4-Diamino-2-(aminomethyl)benzene 70643-20-8,
 1,3-Diamino-4-(2-hydroxyethoxy)benzene sulfate 73793-80-3,
 1,4-Diamino-2-(hydroxymethyl)benzene 79352-72-0, 4-Amino-2-
 (aminomethyl)phenol 83763-48-8, 2-Amino-4-[(2-hydroxyethyl)amino]anisole
 sulfate 84540-50-1, 3-Amino-2-chloro-6-methylphenol 88209-80-7,
 3,5-Diamino-(1,1'-biphenyl)-4-ol 91391-76-3, (1,1'-Biphenyl)-3,5-diamine
 93841-25-9, 2-(2,5-Diaminophenyl)ethanol sulfate 94158-14-2,
 4-[(2-Hydroxyethyl)amino]-1,2-(methylenedioxy)benzene hydrochloride
 96886-30-5 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene
 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7,
 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-
 Hydroxypropyl)amino]aniline 105293-89-8, 4-(Dipropylamino)aniline
 109942-17-8, 2,5-Diamino-1,1'-biphenyl 110952-46-0, 4-Amino-2-[[2-
 hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-
 (hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-
 hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-
 aminophenyl)amino]butane 131657-78-8, 6-Chloro-2-(ethylamino)-4-

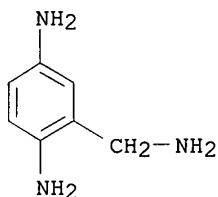
- nitrophenol 135043-64-0, 4-Amino-2-(aminomethyl)phenol dihydrochloride 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 155601-30-2, 4,5-Diamino-1-(2-hydroxyethyl)pyrazole sulfate 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis[(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 244104-61-8, 1,4-Diamino-2-(thien-2-yl)benzene 246244-41-7, 1,4-Diamino-2-(thien-3-yl)benzene 306959-12-6, 1,4-Diamino-2-(pyridin-3-yl)benzene 329320-36-7, 1-(2,5-Diaminophenyl)ethanol 337906-36-2, 1,4-Diamino-2-(methoxymethyl)benzene 350482-02-9, 5-Amino-4-fluoro-2-methylphenol sulfate 443753-63-7, 4-[Benzo[1,3]dioxol-5-yl]benzene-1,3-diamine 443753-64-8, 4'-Fluoro-1,1'-biphenyl-3,5-diamine 443753-65-9, 4'-Amino-1,1'-biphenyl-3,5-diamine 443753-66-0, 3'-Hydroxy-1,1'-biphenyl-3,5-diamine 443753-67-1, 4'-Methoxy-1,1'-biphenyl-3,5-diamine
- RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(**hair** dye component; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)
- IT 443753-46-6P, (1,1'-Biphenyl)-3,5-diamine hydrochloride 443753-47-7P, (1,1'-Biphenyl)-3,5,4'-triamine hydrochloride 443753-48-8P, 3',5'-Diamino-1,1'-biphenyl-4-ol hydrochloride 443753-49-9P, 4'-Methyl-(1,1'-biphenyl)-3,5-diamine hydrochloride 443753-50-2P, 3',5'-Diamino-1,1'-biphenyl-4-carbonitrile hydrochloride 443753-51-3P, 4'-Nitro-(1,1'-biphenyl)-3,5-diamine hydrochloride 443753-52-4P, 4'-Trifluoromethyl-(1,1'-biphenyl)-3,5-diamine hydrochloride 443753-53-5P, [5-Benzo[1,3]dioxol-5-yl]benzene-1,3-diamine hydrochloride 443753-54-6P, 4'-Fluoro-(1,1'-biphenyl)-3,5-diamine hydrochloride 443753-55-7P, 2',4'-Dimethyl-(1,1'-biphenyl)-3,5-diamine hydrochloride 443753-56-8P, 3',5'-Diamino-1,1'-biphenyl-3-ol hydrochloride 443753-57-9P, 1-(3',5'-Diamino-1,1'-biphenyl-3-yl)ethanone hydrochloride 443753-58-0P, 2'-Nitro-1,1'-biphenyl-3,5-diamine hydrochloride 443753-59-1P, 3'-Methoxy-1,1'-biphenyl-3,5-diamine hydrochloride 443753-60-4P, 4'-Methylsulfanyl-1,1'-biphenyl-3,5-diamine hydrochloride 443753-61-5P, 2'-Chloro-4'-nitro-1,1'-biphenyl-3,5-diamine hydrochloride
- RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**hair** dye component; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)
- IT 18242-39-2, 1-Bromo-3,5-dinitrobenzene
- RL: RCT (Reactant); RACT (Reactant or reagent)
(nitro group redn. of; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)
- IT 443753-62-6P
- RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and Pd.-catalyzed coupling with bromobenzene; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)
- IT 364038-88-0P, tert-Butyl [5-bromo-3-(tert-butoxycarbonylamino)phenyl]carbamate
- RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and Pd.-catalyzed coupling with octamethyl[2,2']bi[[1,3,2]dioxaborolanyl]; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring

agents for the oxidative coloring of **keratin** fibers)

IT 33786-90-2P, 5-Bromo-1,3-phenylenediamine
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and protection with di(tert-butyl) dicarbonate; prepn. of
 (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the
 oxidative coloring of **keratin** fibers)

IT 67199-87-5, 1,4-Diamino-2-(aminomethyl)benzene
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (**hair** dye component; prepn. of (1,1'-biphenyl)-3,5-diamine
 derivs. as coloring agents for the oxidative coloring of
keratin fibers)

RN 67199-87-5 HCAPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:465768 HCAPLUS
 DN 137:37385
 TI Aminophenol compounds as couplers in oxidative **hair** dyeing
 IN Lim, Mu-Ill; Pan, Yuh-Guo; Popp, Margaret
 PA Clairol Incorporated, USA
 SO PCT Int. Appl., 51 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A61K007-13
 ICS C07C211-44
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 25

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002047635	A1	20020620	WO 2001-US46464	20011207
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 6409773	B1	20020625	US 2000-736913	20001214
AU 2002028800	A5	20020624	AU 2002-28800	20011207
PRAI US 2000-736913	A	20001214		
WO 2001-US46464	W	20011207		

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

OS MARPAT 137:37385

AB Aminophenol compds. are described as novel orange couplers for use in **hair** coloring compns. comprising one or more oxidative **hair** coloring agents in combination with one or more oxidizing agents. These novel couplers provide for dyeing of **hair** that provides color or shades that possess good wash fastness and do not undergo the significant changes on exposure to light or shampooing as experienced with 5-amino-2-methylphenol. The novel couplers are prepd. by a reaction of an aminophenol with an appropriate ketone in the presence of suitable reducing agent, such as sodium triacetoxyborohydride or sodium borohydride. For example, 5-(1-cyclopropylethylamino)-2-methylphenol was prepd. as its trifluoroacetate (TFA) salt by reacting cyclopropyl Me ketone (40.4 mg, 0.48 mmole) with 5-amino-2-methylphenol (49.3 mg, 0.40 mmole) in anhyd. 1,2-dichloroethane soln. in presence of 1% acetic acid at room temp. using sodium triacetoxyborohydride (169.9 mg, 0.80 mmole) as reducing agent.

ST aminophenol compd prepn coupler oxidative **hair** dye

IT **Hair** preparations

(dyes, oxidative; oxidative **hair** dye compns. contg. aminophenol compds. as couplers)

IT Human

Oxidizing agents

(oxidative **hair** dye compns. contg. aminophenol compds. as couplers)

IT Reducing agents

(prepn. of aminophenol compds. as couplers in oxidative **hair** dyeing)

IT 90-15-3, 1-Naphthol 95-55-6, 2-Aminophenol 95-70-5, 2-Methylbenzene-1,4-diamine 106-50-3, p-Phenylenediamine, biological studies 108-45-2, Benzene-1,3-diamine, biological studies 108-46-3, Benzene-1,3-diol, biological studies 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 591-27-5, 3-Aminophenol 608-25-3, 2-Methylresorcinol 1004-74-6, Pyrimidinetetramine 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 7469-77-4, 2-Methyl-1-naphthol 7575-35-1 7722-84-1, Hydrogen peroxide, biological studies 17672-22-9, 2-Amino-6-methylphenol **67199-87-5** 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 129697-50-3 155601-17-5 220264-58-4 220264-60-8 244104-61-8 246244-41-7 329320-36-7

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (oxidative **hair** dye compns. contg. aminophenol compds. as couplers)

IT 2835-95-2, 5-Amino-2-methylphenol

RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses) (oxidative **hair** dye compns. contg. aminophenol compds. as couplers)

IT 437702-27-7P 437702-28-8P 437702-29-9P 437702-30-2P 437702-31-3P 437702-32-4P 437702-33-5P 437702-34-6P 437702-35-7P 437702-36-8P 437702-37-9P

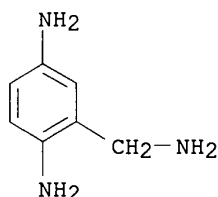
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of aminophenol compds. as couplers in oxidative **hair** dyeing)

IT 765-43-5, Cyclopropyl methyl ketone

RL: RCT (Reactant); RACT (Reactant or reagent) (prepn. of aminophenol compds. as couplers in oxidative **hair** dyeing)

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dyeing)
 IT 16940-66-2, Sodium borohydride 56553-60-7, Sodium triacetoxyborohydride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reducing agent; prepn. of aminophenol compds. as couplers in oxidative
 hair dyeing)
 RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Andrillon; US 4065255 1977
 (2) Audousset; US 6004356 1999 HCAPLUS
 IT 67199-87-5
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dye compns. contg. aminophenol compds. as
 couplers)
 RN 67199-87-5 HCAPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)

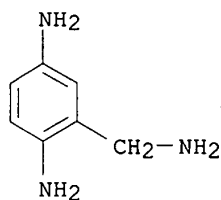


L26 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:747103 HCAPLUS
 DN 135:308585
 TI 1,3-Dihydroxybenzene derivatives and compositions containing them as
 coloring agents for **keratin** fibers
 PA Wella AG, Germany
 SO Ger. Gebrauchsmusterschrift, 45 pp.
 CODEN: GGXXFR
 DT Patent
 LA German
 IC ICM C07D333-04
 ICS A61K007-13; C07D213-04; C07D239-26
 CC 62-4 (Essential Oils and Cosmetics)
 Section cross-reference(s): 25, 27
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20108704	U1	20011011	DE 2001-20108704	20010525
	WO 2002096901	A2	20021205	WO 2002-EP850	20020128
	WO 2002096901	A3	20030313		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

BR 2002005398 A 20030701 BR 2002-5398 20020128
PRAI DE 2001-10125453 A 20010525
DE 2001-20108704 U 20010525
WO 2002-EP850 W 20020128
OS MARPAT 135:308585
AB An agent for coloring **keratin** fibers comprises a coupling agent combined with a developing agents. The invention comprises at least one 1,3-dihydroxybenzene deriv. having a mol. structure defined in the claims. Among the derivs. of the invention are 1,3-dihydroxy-4-(thiophen-2-yl)benzene and 1,3-dihydroxy-4-(5-nitrothiophen-2-yl)benzene. A developer that can be used is 1,4-diaminobenzene.
ST **keratin hair dye** dihydroxybenzene deriv
IT pH
(1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for **keratin** fibers)
IT **Keratins**
RL: RCT (Reactant); RACT (Reactant or reagent)
(1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for **keratin** fibers)
IT **Hair preparations**
(dyes; 1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for **keratin** fibers)
IT 108-46-3D, 1,3-Dihydroxybenzene, derivs.
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for **keratin** fibers)
IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 1H-Indole-2,3-dione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 93-05-0 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 99-98-9 101-54-2 106-50-3, 1,4-Diaminobenzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 123-30-8, 4-Aminophenol 137-19-9 141-86-6, 2,6-Diaminopyridine 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxybenzene 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-66-7 619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7 1630-11-1 1687-53-2 1953-54-4, 5-Hydroxyindole 2359-52-6 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 3131-52-0, 5,6-Dihydroxyindole 4318-76-7, 2,5-Diaminopyridine 5306-96-7 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9 5862-80-6 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6393-01-7 6941-70-4 7218-02-2 7469-77-4, 2-Methyl-1-naphthol 7575-35-1 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine 17672-22-9, 2-Amino-6-methylphenol 22446-41-9 26011-57-4, 6-Amino-3,4-Dihydro-1,4(2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-(3-Dimethylaminophenyl)urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5,

5,6-Dihydroxyindoline 29785-47-5, 4-Amino-2-methoxymethylphenol
 39489-79-7, 5-Amino-2,4-dichlorophenol 45514-38-3 53222-92-7,
 3-Amino-2-methylphenol 55302-96-0 61693-42-3, 3-Amino-2,4-
 dichlorophenol 66566-48-1 **67199-87-5** 70643-19-5,
 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7 71500-41-9
 71500-42-0 73793-80-3 75513-65-4 76045-64-2 78661-33-3
 79352-72-0, 4-Amino-2-aminomethylphenol 80592-80-9 80592-81-0
 81329-90-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]
 anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1,
 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-
 dimethoxypyridine 86817-42-7 90817-34-8 93841-24-8 94082-77-6
 97902-52-8 104333-08-6 104333-09-7, 4-Amino-2-hydroxymethylphenol
 104752-48-9 104752-50-3 104752-51-4 105293-89-8 109942-17-8,
 [1,1'-Biphenyl]-2,5-diamine 110102-86-8, 5-Amino-4-chloro-2-methylphenol
 110952-46-0 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine
 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0,
 5-Amino-4-fluoro-2-methylphenol 126335-43-1 128729-30-6 130582-53-5
 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9 139443-57-5,
 5-Amino-4-ethoxy-2-methylphenol 141614-04-2 141614-05-3 141922-20-5,
 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2 146658-65-3
 155601-16-4 155601-17-5 157469-54-0 157469-55-1 159661-45-7
 168092-23-7 168202-61-7, 4-Amino-3-hydroxymethylphenol 207568-58-9
 207923-07-7 244104-61-8 246244-41-7 306959-12-6 307493-94-3
 329320-36-7 337906-36-2 359866-26-5 359866-36-7 365548-62-5
 365548-63-6 365548-64-7 365548-65-8 365548-66-9 365548-67-0
 365548-68-1 365548-73-8
 RL: BUU (Biological use, unclassified); PEP (Physical, engineering or
 chemical process); RCT (Reactant); BIOL (Biological study); PROC
 (Process); RACT (Reactant or reagent); USES (Uses)
 (1,3-dihydroxybenzene derivs. and compns. contg. them as coloring
 agents for **keratin** fibers)
 IT 31963-61-8P 365548-74-9P
 RL: BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic
 preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant
 or reagent); USES (Uses)
 (1,3-dihydroxybenzene derivs. and compns. contg. them as coloring
 agents for **keratin** fibers)
 IT 110-87-2, 3,4-Dihydro-2H-pyran 6626-15-9, 4-Bromo-1,3-dihydroxybenzene
 14221-01-3 24057-28-1 72287-26-4 73183-34-3 106120-04-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (1,3-dihydroxybenzene derivs. and compns. contg. them as coloring
 agents for **keratin** fibers)
 IT 365548-75-0P 365548-76-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (1,3-dihydroxybenzene derivs. and compns. contg. them as coloring
 agents for **keratin** fibers)
 IT **67199-87-5**
 RL: BUU (Biological use, unclassified); PEP (Physical, engineering or
 chemical process); RCT (Reactant); BIOL (Biological study); PROC
 (Process); RACT (Reactant or reagent); USES (Uses)
 (1,3-dihydroxybenzene derivs. and compns. contg. them as coloring
 agents for **keratin** fibers)
 RN 67199-87-5 HCAPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:730682 HCAPLUS
 DN 135:293678
 TI Use of p-diaminobenzene derivatives and **hair** dyes containing
 said compounds
 IN Chassot, Laurent
 PA Wella Aktiengesellschaft, Germany
 SO PCT Int. Appl., 34 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 IC ICM C07C211-53
 ICS C07C215-68; C07C215-16; A61K007-13
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 41

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001072686	A1	20011004	WO 2001-EP1860	20010220
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG DE 10014855 A1 20011011 DE 2000-10014855 20000324 DE 10014855 C2 20020516 BR 2001005310 A 20020219 BR 2001-5310 20010220 EP 1183227 A1 20020306 EP 2001-919309 20010220 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO US 2003145764 A1 20030807 US 2001-19861 20011109 PRAI DE 2000-10014855 A 20000324 WO 2001-EP1860 W 20010220 OS MARPAT 135:293678 AB The invention relates to p-diaminobenzene derivs. or physiol. acceptable, water-sol. salts thereof and the use thereof as developer substances in oxidn. dying of keratin fibers. ST diaminobenzene deriv hair dye IT Dyes (developers; p-diaminobenzene derivs. and hair dyes contg. them) IT Hair preparations				

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

(dyes, oxidative; p-diaminobenzene derivs. and hair dyes contg. them)

IT Coupling agents
(p-diaminobenzene derivs. and hair dyes contg. them)

IT 95-70-5, 2,5-Diaminotoluene 106-50-3, 1,4-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol 93841-24-8
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(developer; p-diaminobenzene derivs. and hair dyes contg. them)

IT 123-30-8D, 4-Aminophenol, derivs. 1004-74-6D, Tetraaminopyrimidine, derivs. 16461-98-6D, 1H-Pyrazole-3,4-diamine, derivs.
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(developers; p-diaminobenzene derivs. and hair dyes contg. them)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8 89-83-8 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 106-50-3D, p-Diaminobenzene, derivs. 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Amino-phenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 1H-Indol-4-ol 2835-95-2, 5-Amino-2-methylphenol 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0 6941-70-4 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1 22446-41-9 26011-57-4 26021-57-8 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol 55302-96-0 61693-42-3, 3-Amino-2,4-dichlorophenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71500-41-9 71500-42-0 76045-64-2 80592-80-9 80592-81-0 81329-90-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-48-7 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 94082-77-6 104752-50-3 104752-51-4 110102-86-8 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2 146658-65-3 168092-23-7 180156-45-0 207923-07-7 359866-26-5 359866-36-7
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(p-diaminobenzene derivs. and hair dyes contg. them)

IT 364343-16-8 364343-17-9 364343-18-0
364343-19-1 364343-20-4 364343-21-5
364343-22-6 364343-23-7 364343-24-8
364343-25-9 364343-26-0 364343-27-1
364343-28-2 364343-29-3 364343-30-6 364343-31-7
364343-32-8 364353-63-9
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or

chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
 (p-diaminobenzene derivs. and hair dyes contg. them)

IT 364343-16-8DP, derivs. 364343-34-0P 364343-35-1P
 364343-36-2P 364343-37-3P 364343-38-4P
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL
 (Biological study); PREP (Preparation); USES (Uses)
 (p-diaminobenzene derivs. and hair dyes contg. them)

IT 917-54-4, Methyllithium 2136-75-6 24424-99-5, Di-tert-butylidicarbonate
 71026-66-9 244104-66-3 325953-40-0 325953-41-1 325953-45-5
 325953-46-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (p-diaminobenzene derivs. and hair dyes contg. them)

IT 244104-65-2P 325953-36-4P 364343-33-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (p-diaminobenzene derivs. and hair dyes contg. them)

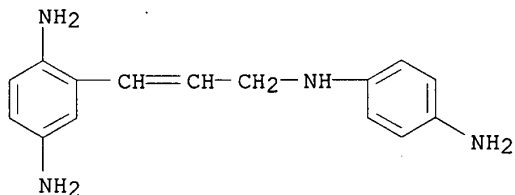
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE
 (1) Henkel Kgaa; EP 0286896 A 1988 HCAPLUS
 (2) Wella Ag; DE 19822041 A 1999 HCAPLUS

IT 364343-16-8
 RL: BUU (Biological use, unclassified); PEP (Physical, engineering or
 chemical process); BIOL (Biological study); PROC (Process); USES (Uses)
 (p-diaminobenzene derivs. and hair dyes contg. them)

RN 364343-16-8 HCAPLUS

CN 1,4-Benzenediamine, 2-[3-[(4-aminophenyl)amino]-1-propenyl]- (9CI) (CA
 INDEX NAME)



L26 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:729681 HCAPLUS

DN 135:288573

TI Preparation of aminophenol derivatives and their use in coloring agents

PA Wella AG, Germany

SO Ger. Gebrauchsmusterschrift, 40 pp.
 CODEN: GGXXFR

DT Patent

LA German

IC ICM C07C215-80
 ICS C07C217-08; D06P001-645; A61K007-13; C07D317-48; C07D295-04;
 C07D521-00; C07F007-10

CC 25-10 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 41, 62

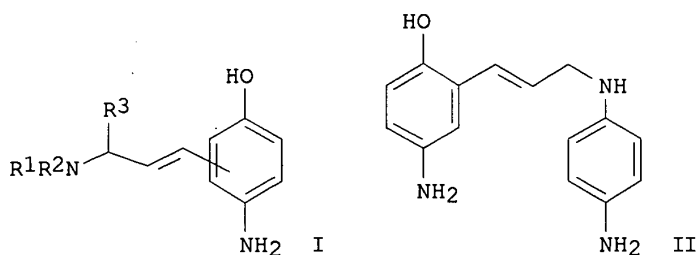
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 20111038	U1	20011004	DE 2001-20111038	20010704

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

PRAI DE 2001-20111038
OS MARPAT 135:288573
GI

20010704



AB Para-aminophenol derivs. I [R1, R2 = H, C1-2-alkoxy, C1-6-alkyl, C3-6-alkenyl, C2-4-hydroxyalkyl, C3-4-dihydroxyalkyl, C2-4-aminoalkyl, C2-4-(dimethylamino)alkyl, C2-4-(acetylamino)alkyl, C2-4-methoxyalkyl, C2-4-ethoxyalkyl, C1-4-cyanoalkyl, C1-4-carboxyalkyl, C1-4-(aminocarbonyl)alkyl, pyridylmethyl, furfuryl, thienylmethyl, hydrogenated furfuryl, (un)substituted pyridyl, Ph, aminopyrazolyl; R1R2N = (un)substituted piperidino, morpholino, piperazino, pyrrolidino; R3 = H, C1-6-alkyl] their physiol. compatible, water sol. salts are claimed. Thus, 4-amino-2-[3-((4-aminophenyl)amino)propenyl]phenol hydrochloride (II.cntdot.HCl) was prepd. from 4-HOC6H4NHBoc (Boc = CO2CMe3) via ortho bromination, hydroxyl group protection with ClCH2OEt, debromination-formylation, Wittig reaction with Ph3P:CHCHO, and reductive amination with 4-H2NC6H4NHBoc. I were used in oxidative **hair** coloring formulations.

ST aminophenol deriv prepn coloring agent

IT Phenols, preparation

RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(amino; prepn. of aminophenol derivs. and their use in coloring agents)

IT Cosmetics

(coloring agents; prepn. of aminophenol derivs. and their use in coloring agents)

IT Dyes

(direct; prepn. of aminophenol derivs. and their use in coloring agents)

IT **Hair** preparations

(dyes, oxidative; prepn. of aminophenol derivs. and their use in coloring agents)

IT Amines, preparation

RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(phenolic; prepn. of aminophenol derivs. and their use in coloring agents)

IT Coloring materials

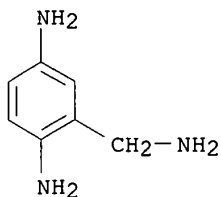
Stains, coloring materials

(prepn. of aminophenol derivs. and their use in coloring agents)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-(Diethylamino)phenol 92-44-4,

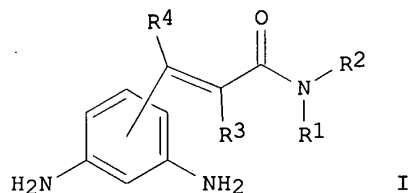
2,3-Dihydroxynaphthalene 92-65-9 93-05-0, 4-(Diethylamino)aniline
95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5,
1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-(Dimethylamino)phenol
99-98-9, 4-(Dimethylamino)aniline 101-54-2, 4-(Phenylamino)aniline
106-50-3, 1,4-Diaminobenzene, uses 108-45-2, 1,3-Diaminobenzene, uses
108-46-3, 1,3-Dihydroxybenzene, uses 137-19-9 141-86-6,
2,6-Diaminopyridine 150-75-4, 4-(Methylamino)phenol 399-95-1,
4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-31-3,
3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxybenzene 575-38-2,
1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 608-25-3,
1,3-Dihydroxy-2-methylbenzene 615-66-7, 2-Chloro-1,4-diaminobenzene
619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1004-74-6,
2,4,5,6-Tetraaminopyrimidine 1004-75-7 1630-11-1 1687-53-2,
5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2359-52-6
2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1,
4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-96-3,
4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6,
4-Amino-3-methylphenol 3131-52-0, 5,6-Dihydroxyindole 4318-76-7,
2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene
5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9 5862-80-6
6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6358-09-4,
2-Amino-6-chloro-4-nitrophenol 6393-01-7, 1,4-Diamino-2,5-
dimethylbenzene 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene
7218-02-2 7228-00-4 7469-77-4, 2-Methyl-1-naphthol 7575-35-1
14268-66-7, 1,3-Benzodioxol-5-amine 16867-03-1, 2-Amino-3-
hydroxypyridine 17672-22-9, 2-Amino-6-methylphenol 26011-57-4,
6-Amino-3,4-dihydro-1,4(2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-
hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-[3-(Dimethylamino)phenyl]urea
28020-38-4, 2,3-Diamino-6-methoxypyridine 28365-08-4 29539-03-5,
5,6-Dihydroxyindoline 29785-47-5, 4-Amino-2-(methoxymethyl)phenol
39489-79-7, 5-Amino-2,4-dichlorophenol 45514-38-3 53222-92-7,
3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-
methylphenol 61693-42-3, 3-Amino-2,4-dichlorophenol 66566-48-1,
4-[(2-Methoxyethyl)amino]aniline **67199-87-5** 70643-19-5,
2,4-Diamino-1-(2-hydroxyethoxy)benzene 70643-20-8 71077-37-7
71500-41-9 71500-42-0 73793-80-3 75513-65-4 76045-64-2
78661-33-3 79352-72-0, 4-Amino-2-(aminomethyl)phenol 80592-80-9
80592-81-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-
hydroxyethyl)amino]anisole 83763-48-8 83789-94-0 84540-47-6,
2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7 84540-50-1,
3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-
dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol
90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 93841-24-8,
1,4-Diamino-2-(2-hydroxyethyl)benzene 94082-77-6 97902-52-8,
1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6 104333-09-7,
4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-
Hydroxypropyl)amino]aniline 104752-50-3 104752-51-4 105293-89-8
109942-17-8, [1,1'-Biphenyl]-2,5-diamine 110102-86-8,
5-Amino-4-chloro-2-methylphenol 110952-46-0, 4-Amino-2-[(2-
hydroxyethyl)amino)methyl]phenol 111451-24-2, 2,6-Diamino-3,5-
dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene
122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8 126335-43-1
128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol
130582-53-5 131657-78-8 135043-64-0, 4-Amino-2-(aminomethyl)phenol
dihydrochloride 137290-78-9, 5-Amino-4-methoxy-2-methylphenol
137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol
139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2 141614-05-3,
2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5,

2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2 146658-65-3
 149330-25-6 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole
 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0,
 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1
 168092-23-7 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9
 207923-07-7 217311-43-8 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-
 benzodioxole 244104-61-8 246244-41-7 306959-12-6 307493-94-3
 329320-36-7 337906-36-2 364328-00-7 364328-01-8 364328-20-1
 364328-21-2
 RL: NUU (Other use, unclassified); USES (Uses)
 (oxidative hair coloring component; prepn. of aminophenol
 derivs. and their use in coloring agents)
 IT 123-30-8, 4-Aminophenol 591-27-5, 3-Aminophenol
 RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or
 reagent); USES (Uses)
 (oxidative hair coloring component; prepn. of aminophenol
 derivs. and their use in coloring agents)
 IT 615-50-9P 74918-21-1P, 1,3-Bis(2,4-diaminophenoxy)propane
 tetrahydrochloride 93841-25-9P 155601-30-2P 364598-57-2P
 364598-58-3P 364598-59-4P 364598-60-7P 364598-61-8P 364598-62-9P
 364598-63-0P 364598-64-1P 364598-65-2P 364598-66-3P 364598-67-4P
 364598-68-5P 364598-69-6P 364598-70-9P 364598-71-0P 364598-72-1P
 364598-73-2P 364598-74-3P 364598-75-4P 364598-76-5P 364598-77-6P
 364598-78-7P 364598-79-8P 364598-80-1P 364598-81-2P 364598-82-3P
 364598-83-4P 364598-84-5P 364598-86-7P 364598-87-8P 364598-88-9P
 364598-89-0P 364598-90-3P 364598-91-4P 364598-92-5P 364598-93-6P
 364598-94-7P 364598-95-8P 364598-96-9P
 RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP
 (Preparation); USES (Uses)
 (oxidative hair coloring component; prepn. of aminophenol
 derivs. and their use in coloring agents)
 IT 63-74-1, 4-Aminobenzenesulfonamide 75-04-7, Ethylamine, reactions
 75-31-0, Isopropylamine, reactions 99-57-0, 2-Amino-4-nitrophenol
 107-11-9, Allylamine 107-15-3, Ethylenediamine, reactions 109-01-3
 109-83-1, (2-Hydroxyethyl)methylamine 109-85-3, (2-Methoxyethyl)amine
 110-91-8, Morpholine, reactions 111-42-2, Bis(2-hydroxyethyl)amine,
 reactions 123-75-1, Pyrrolidine, reactions 498-63-5, Prolinol
 504-29-0, 2-Aminopyridine 617-89-0, Furfurylamine 765-30-0,
 Cyclopropylamine 1001-53-2, N-Acetylenediamine 2136-75-6,
 (Formylmethylene)triphenylphosphorane 4795-29-3, Tetrahydrofurfurylamine
 5382-16-1, 4-Hydroxypiperidine 6638-79-5, N,O-Dimethylhydroxylamine
 hydrochloride 6859-99-0, 3-Hydroxypiperidine 25808-30-4,
 (Methylamino)acetonitrile hydrochloride 35303-76-5, 4-(2-
 Aminoethyl)benzenesulfonamide 40499-83-0, 3-Hydroxypyrrolidine
 54840-15-2 71026-66-9 325953-40-0 325953-41-1 325953-45-5
 325953-46-6 364598-97-0 364598-98-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of aminophenol derivs. and their use in coloring agents)
 IT 364598-99-2P 364599-00-8P 364599-01-9P 364599-02-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. of aminophenol derivs. and their use in coloring agents)
 IT 67199-87-5
 RL: NUU (Other use, unclassified); USES (Uses)
 (oxidative hair coloring component; prepn. of aminophenol
 derivs. and their use in coloring agents)
 RN 67199-87-5 HCAPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:729680 HCAPLUS
 DN 135:288588
 TI (m-Diaminophenyl)acrylamide derivatives and **hair** coloring agents containing these compounds
 PA Wella AG, Germany
 SO Ger. Gebrauchsmusterschrift, 48 pp.
 CODEN: GGXXFR
 DT Patent
 LA German
 IC ICM C07C237-20
 ICS A61K007-13; C07D317-48; C07D295-04
 CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 62
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20111037	U1	20011004	DE 2001-20111037	20010704
PRAI	DE 2001-20111037		20010704		
OS	MARPAT 135:288588				
GI					



AB (m-Diaminophenyl)acrylamide derivs. I [R1, R2 = H, C1-2 alkoxy, C1-6 alkyl, unsatd. C3-6 alkyl, C2-4 hydroxyalkyl, C3-4 dihydroxyalkyl, C2-4 aminoalkyl, a C2-4 dimethylaminoalkyl, C2-4 acetylaminoalkyl, a C2-4 methoxyalkyl, C2-4 ethoxyalkyl, C1-4 cyanoalkyl, C1-4 carboxyalkyl, C2-4 aminocarbonylalkyl, pyridylmethyl, furfuryl, hydrogenated furfuryl, substituted pyridyl, (un)substituted Et, (un)substituted Ph, substituted aminopyrazolyl; or R1 and R2 together with the N atom form a ring; R3, R4 = H, C1-4 alkyl; preferably, R3 = R4 = H, or R1, R2 and R4 = H, R2 = aminophenyl, hydroxyphenyl] or their physiol. compatible, water-sol. salts, useful in oxidative **hair** dyes based on a developer substance-coupling substance combination in one suitable cosmetic carrier,

are claimed. Preferred compds. I are 3-(2,4-diaminophenyl)-1-morpholinopropenone, 3-(2,4-diaminophenyl)-N-(4-hydroxyphenyl)acrylamide, 3-(3,5-diaminophenyl)-N-(4-hydroxyphenyl)acrylamide, N-(3-aminophenyl)-3-(3,5-diaminophenyl)acrylamide and N-(4-aminophenyl)-3-(3,5-diaminophenyl)acrylamide, or their physiol. acceptable salts (prepn. given). In examples given, compds. I are formulated with one or more known developer substances and one or more known addnl. coupling substances to give various shades of color when applied to **hair**; e.g., 0.10 g 3-(2,4-diaminophenyl)-1-morpholinopropenone HCl salt, 0.30 g 1,4-diaminobenzene, 0.05 g 1,3-diamino-4-(2-hydroxyethyl)aminoanisole sulfate, and 0.05 g 3-aminophenol (formulation given) afforded blond **hair**.

ST acrylamide diaminophenyl prepn **hair** dye component; coupling substance oxidative **hair** dye acrylamide

IT **Hair** preparations

(dyes, oxidative; (diaminophenyl)acrylamide derivs. in)

IT Cosmetics

Hair

(prepn. of (diaminophenyl)acrylamide derivs. and their use as coupling agents in oxidative **hair** dyes contg. developer-coupler substance combinations)

IT **Keratins**

RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)

(prepn. of (diaminophenyl)acrylamide derivs. and their use as coupling agents in oxidative **hair** dyes contg. developer-coupler substance combinations)

IT Amides, preparation

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of (diaminophenyl)acrylamide derivs. and their use as coupling agents in oxidative **hair** dyes contg. developer-coupler substance combinations)

IT 2605-67-6, Methoxycarbonylmethylenetriphenylphosphorane

RL: RCT (Reactant); RACT (Reactant or reagent)

(Wittig olefination by, of formylbenzene deriv.)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-(Diethylamino)phenol 92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-(Dimethylamino)phenol 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 1-Acetoxy-2-methylnaphthalene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4, 2-[(3-Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-[(3-Dimethylamino)phenyl]urea 28020-38-4,

2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline
 39489-79-7, 5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-
 methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol
 61693-42-3, 3-Amino-2,4-dichlorophenol 70643-19-5, 2,4-Diamino-1-(2-
 hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene
 71500-41-9 71500-42-0, 3-[Bis(2-hydroxyethyl)amino]aniline 74918-21-1
 75513-65-4, 1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2,
 3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-
 methylaminobenzene 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-
 methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol
 81892-72-0, 1,3-Bis(2,4-diaminophenoxy)propane 83763-47-7,
 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6,
 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxyacetic
 acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3,
 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-
 hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-
 (methylamino)pyridine 94082-77-6, 2,4-Diamino-1,5-bis(2-
 hydroxyethoxy)benzene 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene
 104752-51-4 110102-86-8, 5-Amino-4-chloro-2-methylphenol 111451-24-2
 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0,
 5-Amino-4-fluoro-2-methylphenol 137290-78-9, 5-Amino-4-methoxy-2-
 methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-
 methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2,
 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-
 hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-
 methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol
 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6
 164919-03-3 168092-23-7, Bis(2,4-diaminophenoxy)methane 207923-07-7
 244028-58-8, 2,4-Bis[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene
 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 307493-94-3,
 1,3-Diamino-4-(3-hydroxypropoxy)benzene 364343-80-6
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(addnl. coupling substance component in oxidative **hair** dye
 based on developer-coupling substance combination contg.
 (diaminophenyl)acrylamide derivs.)

IT 62-53-3, Aniline, reactions 74-89-5, Methylamine, reactions 107-11-9,
 Allylamine 107-15-3, Ethylenediamine, reactions 110-91-8, Morpholine,
 reactions 121-88-0, 2-Amino-5-nitrophenol 123-75-1, Pyrrolidine,
 reactions 498-63-5, Prolinol 616-30-8, 3-Amino-1,2-propanediol
 1001-53-2, N-Acetylenethylenediamine 5382-16-1, 4-Hydroxypiperidine
 6315-89-5, 3,4-Dimethoxyaniline 6638-79-5, N,O-Dimethylhydroxylamine
 hydrochloride 6859-99-0, 3-Hydroxypiperidine 33786-90-2,
 5-Bromo-1,3-diaminobenzene 40499-83-0, 3-Hydroxypyrrolidine 68621-88-5
 71026-66-9, tert-Butyl (4-aminophenyl)carbamate 325953-40-0
 325953-41-1 325953-45-5 325953-46-6

RL: RCT (Reactant); RACT (Reactant or reagent)
 (amidation by, of protected (diaminophenyl)acrylic acid derivs.)

IT 2835-95-2, 5-Amino-2-methylphenol
 RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological
 study); RACT (Reactant or reagent); USES (Uses)
 (amidation by, of protected (diaminophenyl)acrylic acid derivs. and use
 as addnl. coupling substance component in oxidative **hair** dye
 based on developer-coupler combination)

IT 123-30-8, 4-Aminophenol
 RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological
 study); RACT (Reactant or reagent); USES (Uses)
 (amidation by, of protected (diaminophenyl)acrylic acid derivs. and use

- as developer substance component in oxidative **hair** dyes)
- IT 99-98-9, 4-(Dimethylamino)aniline
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(amidation by, of protected (diaminophenyl)acrylic acid derivs., and use as developer substance component in oxidative **hair** dye)
- IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[N-Ethyl-N-(2-hydroxyethyl)amino]aniline 93-05-0, 4-(Diethylamino)aniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 101-54-2, 4-(Phenylamino)aniline 106-50-3, 1,4-Diaminobenzene, biological studies 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-73-3, 1,2,4-Trihydroxybenzene 615-66-7, 1,4-Diamino-2-chlorobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4(1H)pyrimidinone 1630-11-1 2359-52-6 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6 6369-59-1, 2,5-Diaminotoluene sulfate 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2 7575-35-1 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 58262-44-5 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline 67199-87-5, 1,4-Diamino-2-(aminomethyl)benzene 73793-80-3, 1,4-Diamino-2-(hydroxymethyl)benzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-(Dipropylamino)aniline 109942-17-8, [1,1'-Biphenyl]-2,5-diamine 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-aminophenyl)amino]butane 135043-64-0, 4-Amino-2-aminomethylphenol dihydrochloride 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159621-77-9 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-(2-(Acetylamino)ethoxy)-1,4-diaminobenzene 244104-61-8, 1,4-Diamino-2-(2-thienyl)benzene 246244-41-7, 1,4-Diamino-2-(3-thienyl)benzene 306959-12-6, 1,4-Diamino-2-(3-pyridyl)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-(methoxymethyl)benzene 364343-79-3
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(developer substance component in oxidative **hair** dye based on developer-coupling substance combination)
- IT 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 131657-78-8
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(directly absorbable dye component in oxidative **hair** dye prepn.)
- IT 364038-89-1P 364343-82-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and Wittig olefination of)
- IT 364038-88-0P 364343-81-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and formylation of)

IT 6264-69-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and protection of amino groups in, with BOC groups)

IT 364343-83-9P 364343-85-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and sapon. of)

IT 364343-44-2P 364343-45-3P 364343-46-4P 364343-47-5P 364343-48-6P
364343-49-7P 364343-50-0P 364343-51-1P 364343-52-2P 364343-53-3P
364343-54-4P 364343-55-5P 364343-56-6P 364343-57-7P 364343-58-8P
364343-59-9P 364343-60-2P 364343-61-3P 364343-62-4P 364343-63-5P
364343-64-6P 364343-65-7P 364343-66-8P 364343-67-9P 364343-68-0P
364343-69-1P 364343-70-4P 364343-71-5P 364343-72-6P 364343-73-7P
364343-74-8P 364343-75-9P 364343-76-0P 364343-77-1P 364343-78-2P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(prepn. for use as coupling substance component in oxidative
hair dye based on developer-coupling substance combination)

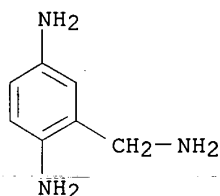
IT 364343-39-5P 364343-40-8P 364343-41-9P 364343-42-0P 364343-43-1P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(prepn. for use as coupling substance component in oxidative
hair dye based on developer-coupling substance combination
contg. (diaminophenyl)acrylamide derivs.)

IT 364343-84-0P 364343-86-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn., deprotection and amidation of)

IT 584-48-5, 1-Bromo-2,4-dinitrobenzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(redn. of)

IT 67199-87-5, 1,4-Diamino-2-(aminomethyl)benzene
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(developer substance component in oxidative hair dye based on
developer-coupling substance combination)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)

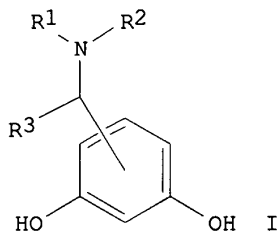


L26 ANSWER 22 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:729678 HCAPLUS
DN 135:288587

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

TI Aminomethyl-m-dihydroxybenzene derivatives and coloring agents for
keratin fibers containing these compounds
 PA Wella AG, Germany
 SO Ger. Gebrauchsmusterschrift, 35 pp.
 CODEN: GGXXFR
 DT Patent
 LA German
 IC ICM C07C215-46
 ICS A61K007-13
 CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 62
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20110356	U1	20011004	DE 2001-20110356	20010622
PRAI	DE 2001-20110356		20010622		
OS	MARPAT 135:288587				
GI					



AB Aminomethyl-m-dihydroxybenzene derivs. I [R1, R2 = H, C1-2 alkoxy, C1-6 alkyl, C3-6 alkenyl, C2-4 hydroxyalkyl, C3-4 dihydroxyalkyl, C2-4 aminoalkyl, C2-4 dimethylaminoalkyl, C2-4 acetylaminoalkyl, C2-4 methoxyalkyl, C2-4 ethoxyalkyl, C1-4 cyanoalkyl, C1-4 aminocarbonylalkyl, pyridylmethyl, furfuryl, thienylmethyl, substituted pyridyl, (un)substituted phenylmethyl or -Et, or R1 and R2 together with the N atom form a ring, including (un)substituted piperidino, morpholino, piperazino, pyrrolidino; R3 = H, C1-4 alkyl; preferably, R3 = H and/or one of R1 or R2 = C2-4 hydroxyalkyl, 3,4-methylenedioxyphenyl, Ph] or their physiol. compatible, water-sol. salts, useful as couplers in oxidative **hair** dyes based on a developer substance-coupling substance combination in one suitable cosmetic carrier, are claimed. In examples given, compds. I are formulated with one or more known developer substances and one or more known addnl. coupling substances to give various shades of color when applied to **hair**; e.g., a prepn. contg. 0.20 g 1,3-dihydroxy-(4-phenylaminomethyl)benzene (prepn. given) 0.15 g 1,4-benzenediamine, 0.30 g 3-methyl-4-aminophenol and 0.30 1-naphthol (formulation given) afforded red-brown **hair**.

ST dihydroxybenzene deriv prepn **hair** dye component; coupling substance oxidative **hair** dye dihydroxybenzene

IT **Hair** preparations
 (dyes, oxidative; dihydroxybenzene derivs. as coupling substances in)

IT Amination
 (of dihydroxybenzaldehyde)

IT Cosmetics
Hair

(prepn. of dihydroxybenzene derivs. and their use as coupling agents in oxidative hair dyes contg. developer-coupler substance combinations)

IT Keratins

RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)

(prepn. of dihydroxybenzene derivs. and their use as coupling agents in oxidative hair dyes contg. developer-coupler substance combinations)

IT Hydroquinones

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of dihydroxybenzene derivs. and their use as coupling agents in oxidative hair dyes contg. developer-coupler substance combinations)

- IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-(Diethylamino)phenol 92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-(Dimethylamino)phenol 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 1-Acetoxy-2-methylnaphthalene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4 7469-77-4, 2-Methyl-1-naphthol 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-[(3-Dimethylamino)phenyl]urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3, 3-Amino-2,4-dichlorophenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71005-35-1 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene 71500-41-9, 4-Amino-2-[bis(2-hydroxyethyl)amino]-1-ethoxybenzene 71500-42-0, 3-[Bis(2-hydroxyethyl)amino]aniline 74918-21-1 75513-65-4, 1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2, 3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol 81892-72-0, 1,3-Bis(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxyacetic acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 94082-77-6, 2,4-Diamino-1,5-bis(2-hydroxyethoxy)benzene 94158-14-2 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 110102-86-8, 5-Amino-4-chloro-2-methylphenol

111451-24-2 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0,
 5-Amino-4-fluoro-2-methylphenol 137290-78-9, 5-Amino-4-methoxy-2-
 methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-
 methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2,
 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-
 hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-
 methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 146658-65-3
 149330-25-6, 2,6-Bis[(2-hydroxyethyl)amino]toluene 164919-03-3
 168092-23-7 207923-07-7, 5-Amino-2-ethylphenol 244028-58-8,
 2,4-Bis[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene 244028-59-9,
 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 307493-94-3 364366-19-8
 364366-20-1

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(addnl. coupling substance component in oxidative **hair** dye
 based on developer-coupling substance combination contg.
 dihydroxybenzene derivs.)

IT 123-30-8, 4-Aminophenol

RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological
 study); RACT (Reactant or reagent); USES (Uses)

(amidation by, of protected (diaminophenyl)acrylic acid derivs. and use
 as developer substance component in oxidative **hair** dyes)

IT 95-01-2, 2,4-Dihydroxybenzaldehyde

RL: RCT (Reactant); RACT (Reactant or reagent)

(amination and subsequent redn. of)

IT 62-53-3, Aniline, reactions 107-11-9, Allylamine 110-91-8, Morpholine,
 reactions 111-42-2, Bis(2-hydroxyethyl)amine, reactions 123-75-1,
 Pyrrolidine, reactions 498-63-5, 2-(Hydroxymethyl)pyrrolidine
 1117-97-1, N,O-Dimethylhydroxylamine 6315-89-5, 3,4-Dimethoxyaniline
 6859-99-0, 3-Hydroxypiperidine 71026-66-9, tert-Butyl
 4-aminophenylcarbamate

RL: RCT (Reactant); RACT (Reactant or reagent)

(amination by, of dihydroxybenzaldehyde and subsequent redn.)

IT 14268-66-7, 3,4-Methylenedioxyaniline

RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological
 study); RACT (Reactant or reagent); USES (Uses)

(amination of dihydroxybenzaldehyde by and use as addnl. coupling
 substance component in oxidative **hair** dyes)

IT 94564-78-0 150268-63-6 364365-60-6 364365-62-8 364365-63-9
 364365-64-0 364365-65-1 364365-66-2 364365-67-3 364365-68-4
 364365-70-8 364365-72-0 364365-74-2 364365-75-3 364365-76-4
 364365-77-5 364365-78-6 364365-80-0 364365-82-2 364365-83-3
 364365-84-4 364365-85-5 364365-86-6 364365-87-7 364365-88-8
 364365-91-3 364365-92-4 364365-93-5 364365-94-6 364365-95-7
 364365-96-8 364365-97-9 364365-99-1 364366-00-7 364366-01-8
 364366-02-9 364366-04-1 364366-05-2 364366-06-3 364366-08-5
 364367-06-6

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(coupling substance component in oxidative **hair** dye based on
 developer-coupling substance combination contg. dihydroxybenzene
 derivs.)

IT 2835-98-5, 2-Amino-5-methylphenol

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(developer and addnl. coupling substance components in oxidative
hair dyes)

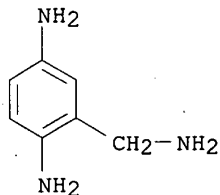
IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[N-Ethyl-N-(2-

hydroxyethyl)amino]aniline 93-05-0, 4-(Diethylamino)aniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 101-54-2, 4-(Phenylamino)aniline 106-50-3, 1,4-Diaminobenzene, biological studies 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-73-3, 1,2,4-Trihydroxybenzene 615-66-7, 1,4-Diamino-2-chlorobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4(1H)pyrimidinone 1630-11-1 2359-52-6, 4-[Bis(2-hydroxyethyl)amino]-2-methylaniline 2835-96-3, 4-Amino-2-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6369-59-1 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2 7575-35-1, 4-[Bis(2-hydroxyethyl)amino]aniline 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 58262-44-5 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-(aminomethyl)benzene 73793-80-3, 1,4-Diamino-2-(hydroxymethyl)benzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-(Dipropylamino)aniline 109942-17-8, [1,1'-Biphenyl]-2,5-diamine 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-aminophenyl)amino]butane 135043-64-0 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1 159621-77-9 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-(2-(Acetylamino)ethoxy)-1,4-diaminobenzene 244104-61-8, 1,4-Diamino-2-(2-thienyl)benzene 246244-41-7, 1,4-Diamino-2-(3-thienyl)benzene 306959-12-6, 1,4-Diamino-2-(3-pyridyl)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 364343-79-3
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (developer substance component in oxidative **hair** dye based on developer-coupling substance combination)
 IT 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 131657-78-8, 2-Chloro-6-(ethylamino)-4-nitrophenol
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (directly absorbable dye component in oxidative **hair** dye prepn.)
 IT 364366-09-6P 364366-11-0P 364366-12-1P 364366-13-2P 364366-14-3P 364366-15-4P 364366-16-5P 364366-17-6P 364366-18-7P 364366-21-2P 364366-22-3P 364366-23-4P 364366-24-5P 364366-25-6P
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of, as coupling substance component in oxidative **hair** dye based on developer-coupling substance combination contg. dihydroxybenzene derivs.)
 IT **67199-87-5**, 1,4-Diamino-2-(aminomethyl)benzene
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(developer substance component in oxidative hair dye based on
developer-coupling substance combination)

RN 67199-87-5 HCAPLUS

CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 23 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:729677 HCAPLUS

DN 135:288586

TI Preparation of (dihydroxyphenyl)acrylamide derivatives and compositions
containing coloring agents

PA Wella AG, Germany

SO Ger. Gebrauchsmusterschrift, 52 pp.

CODEN: GGXXFR

DT Patent

LA German

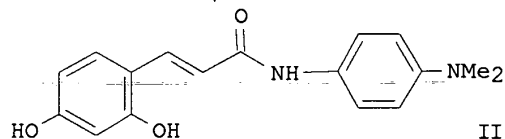
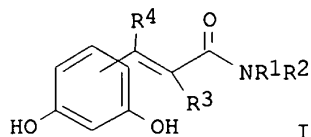
IC ICM C07C235-32

ICS A61K007-13; C07D295-04; C07D227-00

CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20110355	U1	20011004	DE 2001-20110355	20010622
PRAI	DE 2001-20110355		20010622		
OS	MARPAT 135:288586				
GI					



AB (m-dihydroxyphenyl)acrylamide derivs. I [R1, R2 = H, C1-2-alkoxy,
C1-6-alkyl, C3-6-alkenyl, C2-4-hydroxyalkyl, C3-4-dihydroxyalkyl,

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- C2-4-aminoalkyl, C2-4-dimethylaminoalkyl, C2-4-acetylaminoalkyl, C2-4-methoxyalkyl, C2-4-ethoxyalkyl, C1-4-cyanoalkyl, C1-4-carboxyalkyl, C1-4-aminocarbonylalkyl, pyridylmethyl, furfuryl, hydrogenated furfuryl, substituted pyridyl, CHR5CHR6R7, (un)substituted Ph, aminopyrazolyl; R1R2N = (un)substituted piperidine, morpholine, the formulpiperazine, pyrrolidine; R3, R4 = H, C1-4-alkyl; R5 = H, CO2H, CONH2; R6, R7 = H, OH, CONH2, CH2SMe, PH, hydroxyphenyl, morpholinyl, oxopyrrolidinyl, imidazolyl] or its physiol. compatible, water-sol. salts are claimed. Thus, 3-(2,4-dihydroxyphenyl)-N-[4-(dimethylamino)phenyl]acrylamide hydrochloride (II.cntdot.HCl), was prepd. from 2,4-(HO)2C6H4CHO, via hydroxyl group protection, Wittig with (MeO2C)CH:PPh3, sapon., amidation with 4-(Me2N)C6H4NH2 and deprotection. I were used in the prepn. of **hair** dye formulations and their color tints noted.
- ST dihydroxyphenylacrylamide deriv prepn coloring agent
- IT **Hair** preparations
(dyes, oxidative; prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)
- IT Amides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(phenylacrylic; prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)
- IT Coloring materials
Dyes
Stains, coloring materials
(prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)
- IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-(Diethylamino)phenol 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 93-05-0, 4-(Diethylamino)aniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-(Dimethylamino)phenol 99-98-9, 4-(Dimethylamino)aniline 101-54-2, 4-(Phenylamino)aniline 106-50-3, 1,4-Diaminobenzene, uses 108-45-2, 1,3-Diaminobenzene, uses 108-46-3, 1,3-Dihydroxybenzene, uses 123-30-8, 4-Aminophenol 137-19-9 141-86-6, 2,6-Diaminopyridine 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxybenzene 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-50-9 615-66-7, 2-Chloro-1,4-diaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4(1H)-pyrimidinone 1630-11-1 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2359-52-6 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 3131-52-0, 5,6-Dihydroxyindole 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 2-Methyl-1-naphthyl acetate 5862-80-6 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7218-02-2 7228-00-4 7469-77-4, 2-Methyl-1-naphthol 7575-35-1 16867-03-1, 2-Amino-3-hydroxypyridine

17672-22-9, 2-Amino-6-methylphenol 26011-57-4 26021-57-8 26455-21-0,
N-[3-(Dimethylamino)phenyl]urea 28020-38-4, 2,3-Diamino-6-
methoxyppyridine 29539-03-5, 5,6-Dihydroxyindoline 29785-47-5,
4-Amino-2-(methoxymethyl)phenol 39489-79-7, 5-Amino-2,4-dichlorophenol
45514-38-3 53222-92-7, 3-Amino-2-methylphenol 54381-16-7 55302-96-0,
5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3,
3-Amino-2,4-dichlorophenol 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline
67199-87-5 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene
70643-20-8 71077-37-7 71500-41-9 71500-42-0 73793-80-3
74918-21-1, 1,3-Bis (2,4-diaminophenoxy)propane tetrahydrochloride
76045-64-2 78661-33-3 79352-72-0, 4-Amino-2-(aminomethyl)phenol
80592-80-9 80592-81-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-
hydroxyethyl)amino]anisole 83763-48-8 84540-47-6, 2,6-Dihydroxy-3,4-
dimethylpyridine 84540-48-7 84540-50-1, 3-Amino-2-chloro-6-
methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxyppyridine 86817-42-7,
2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-
(methylamino)pyridine 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene
93841-25-9 94082-77-6 94158-14-2 97902-52-8, 1,4-Diamino-2-(1-
methylethyl)benzene 104333-08-6 104333-09-7, 4-Amino-2-
(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline
104752-50-3 104752-51-4 105293-89-8 109942-17-8,
[1,1'-Biphenyl]-2,5-diamine 110102-86-8, 5-Amino-4-chloro-2-methylphenol
110952-46-0 11451-24-2, 2,6-Diamino-3,5-dimethoxyppyridine
115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0,
5-Amino-4-fluoro-2-methylphenol 122481-67-8 126335-43-1 128729-30-6,
1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5
131657-78-8 135043-64-0, 4-Amino-2-(aminomethyl)phenol dihydrochloride
137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9,
5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5,
5-Amino-4-ethoxy-2-methylphenol 141614-04-2 141614-05-3,
2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5,
2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2 146658-65-3
149330-25-6 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole
155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 155601-30-2
157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole
157469-55-1 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane
168092-23-7 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9
207923-07-7 217311-43-8 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-
benzodioxole 244104-61-8 246244-41-7 306959-12-6 307493-94-3
329320-36-7 337906-36-2 364327-98-0 364328-00-7 364328-01-8
364328-08-5

RL: NUU (Other use, unclassified); USES (Uses)

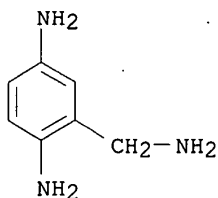
(oxidative hair dye component; prepn. of

(dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

IT	111526-93-3P	128327-79-7P	364326-43-2P	364326-44-3P	364326-45-4P
	364326-46-5P	364326-47-6P	364326-48-7P	364326-49-8P	364326-50-1P
	364326-51-2P	364326-52-3P	364326-53-4P	364326-54-5P	364326-55-6P
	364326-56-7P	364326-57-8P	364326-58-9P	364326-59-0P	364326-60-3P
	364326-61-4P	364326-62-5P	364326-63-6P	364326-64-7P	364326-66-9P
	364326-67-0P	364326-68-1P	364326-69-2P	364326-70-5P	364326-71-6P
	364326-72-7P	364326-73-8P	364326-74-9P	364326-75-0P	364326-76-1P
	364326-77-2P	364326-78-3P	364326-79-4P	364326-80-7P	364326-81-8P
	364326-82-9P	364326-83-0P	364326-84-1P	364326-85-2P	364326-86-3P
	364326-87-4P	364326-88-5P	364326-89-6P	364326-90-9P	364326-91-0P
	364326-92-1P	364326-93-2P	364326-94-3P	364326-95-4P	364326-96-5P
	364326-98-7P	364326-99-8P	364327-00-4P	364327-01-5P	364327-02-6P
	364327-03-7P	364327-04-8P	364327-05-9P	364327-06-0P	364327-07-1P
	364327-08-2P	364327-09-3P	364327-10-6P	364327-11-7P	364327-12-8P

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364327-13-9P 364327-14-0P 364327-15-1P 364327-16-2P 364327-17-3P
364327-18-4P 364327-19-5P 364327-20-8P 364327-21-9P 364327-22-0P
364327-23-1P 364327-24-2P 364327-25-3P 364327-26-4P 364327-27-5P
364327-29-7P 364327-30-0P 364327-31-1P 364327-32-2P 364327-33-3P
364327-34-4P 364327-35-5P 364327-36-6P 364327-37-7P 364327-38-8P
364327-39-9P 364327-40-2P 364327-41-3P 364327-42-4P 364327-43-5P
364327-44-6P 364327-45-7P 364327-46-8P 364327-47-9P 364327-48-0P
364327-49-1P 364327-50-4P 364327-51-5P 364327-52-6P 364327-53-7P
364327-54-8P 364327-55-9P 364327-56-0P 364327-57-1P 364327-58-2P
364327-59-3P 364327-61-7P 364327-62-8P 364327-63-9P 364327-64-0P
364327-65-1P 364327-66-2P 364327-67-3P 364327-68-4P 364327-69-5P
364327-70-8P 364327-71-9P 364327-72-0P 364327-73-1P 364327-74-2P
364327-75-3P 364327-76-4P 364327-77-5P 364327-78-6P 364327-79-7P
364327-80-0P 364327-81-1P 364327-82-2P 364327-83-3P 364327-84-4P
364327-85-5P 364327-86-6P 364327-87-7P 364327-89-9P 364327-90-2P
364327-91-3P 364327-92-4P 364327-93-5P 364327-94-6P 364327-95-7P
364328-09-6P 364328-10-9P 364328-11-0P 364328-12-1P 364328-13-2P
364328-14-3P 364328-15-4P 364328-16-5P 364328-17-6P 364328-18-7P
364328-19-8P
RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP
(Preparation); USES (Uses)
(oxidative hair dye component; prepn. of
(dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)
IT 364328-20-1 364328-21-2
RL: NUU (Other use, unclassified); USES (Uses)
(prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg.
coloring agents)
IT 62-53-3, Aniline, reactions 74-89-5, Methylamine, reactions 95-01-2,
2,4-Dihydroxybenzaldehyde 99-57-0, 2-Hydroxy-5-nitroaniline 107-11-9,
Allylamine 110-91-8, Morpholine, reactions 123-75-1, Pyrrolidine,
reactions 141-43-5, (2-Hydroxyethyl)amine, reactions 498-63-5,
2-(Hydroxymethyl)pyrrolidine 616-30-8, 3-Amino-1,2-propanediol
1001-53-2, N-Acetylenediamine 2605-67-6,
[(Methoxycarbonyl)methylene]triphenylphosphorane 5382-16-1,
4-Hydroxypiperidine 6315-89-5, 3,4-Dimethoxyaniline 6638-79-5,
N,O-Dimethylhydroxylamine hydrochloride 6859-99-0, 3-Hydroxypiperidine
25739-59-7 25808-30-4, (Methylamino)acetonitrile hydrochloride
26153-38-8, 3,5-Dihydroxybenzaldehyde 40499-83-0, 3-Hydroxypyrrolidine
71026-66-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg.
coloring agents)
IT 128837-29-6P 268233-10-9P, 3,5-Bis(ethoxymethoxy)benzaldehyde
364328-02-9P 364328-03-0P 364328-04-1P 364328-05-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg.
coloring agents)
IT 67199-87-5
RL: NUU (Other use, unclassified); USES (Uses)
(oxidative hair dye component; prepn. of
(dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)
RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:672048 HCAPLUS

DN 135:246996

TI Preparation of 2,5-Diamino-benzaldehyde-derivates and their usage in **hair** dyes

PA Wella A.-G., Germany

SO Ger. Gebrauchsmusterschrift; 38 pp.

CODEN: GGXXFR

DT Patent

LA German

IC ICM C07C251-80

ICS A61K007-13; C07C281-08; C07C337-04; C07C317-00; C07C327-28; C07C255-00

CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 24

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20108608	U1	20010913	DE 2001-20108608	20010523
PRAI	DE 2001-20108608		20010523		
OS	MARPAT 135:246996				

AB The invention concerns the synthesis of 2,5-Diamino-benzaldehyde-derivs. and their usage in **hair** dye compns. as developers along with coupling agents and optionally direct dyes. Thus a **hair** dye contained (g): 1,4-diamino-2-(piperidine-1-yl-iminomethyl)-benzene 0.30; 3-methyl-4-aminophenol 0.30; 1-naphthol 0.30; 1,3-dihydroxy benzene 0.18; potassium oleate 10.0; ammonia (22% soln.) 10.0; ethanol 10; ascorbic acid 0.3; water to 100. Upon usage, 30 g of the compn. were mixed with 30 g 6% hydrogen peroxide soln.; after 30 min the dye was rinsed, the resulting color was reddish brown.

ST Diamino benzaldehyde derivs developer oxidative **hair** dye

IT Dyes

(direct; prepn. of 2,5-diamino-benzaldehyde-derivates and usage in **hair** dyes)

IT **Hair** preparations

(dyes, oxidative; prepn. of 2,5-diamino-benzaldehyde-derivates and usage in **hair** dyes)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylamino-phenol 92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9, 1,3-Benzenediol, 4,6-dichloro 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene

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619-05-6, 3,4-Diamino-benzoic acid 770-25-2 1687-53-2,
5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9,
7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole
2835-95-2, 5-Amino-2-methylphenol 3131-52-0, 5,6-Dihydroxyindole
5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9,
1-Naphthalenol, 2-methyl-, acetate 6201-65-6, 2-Chloro-1,3-
dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline
6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4
7469-77-4, 2-Methyl-1-naphthol 7722-84-1, Hydrogen peroxide, biological
studies 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1,
2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-
1,4(2H)benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)benzoxazine
28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5,
5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichloro-phenol
53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-
2-methylphenol 61693-42-3, 3-Amino-2,4-dichloro-phenol 70643-19-5,
2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7 71500-41-9
71500-42-0 75513-65-4 76045-64-2 78661-33-3 80592-80-9
80592-81-0 81892-72-0 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine
84540-48-7 84540-50-1, 3-Amino-2-chloro-6-methylphenol 86817-42-7,
2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-
(methylamino)pyridine 94082-77-6 104752-50-3 104752-51-4,
1,3-Benzenediol, 4,5-dichloro-2-methyl 110102-86-8, 5-Amino-4-chloro-2-
methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine
115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0,
5-Amino-4-fluoro-2-methylphenol 137290-78-9, 5-Amino-4-methoxy-2-
methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-
methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2,
1,3-Benzenediamine, 4-ethoxy-6-methyl- 141614-05-3, 2,4-Diamino-1-(2-
hydroxyethoxy)-5-methylbenzene 142082-56-2 146658-65-3 168092-23-7
207923-07-7, Phenol, 5-amino-2-ethyl- 244028-59-9, 5-[(2-
Hydroxyethyl)amino]-1,3-benzodioxole 307493-94-3 359866-26-5
359866-36-7

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(prepn. of 2,5-diamino-benzaldehyde-derivates and usage in hair
dyes)

IT 359866-18-5P

RL: BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic
preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant
or reagent); USES (Uses)

(prepn. of 2,5-diamino-benzaldehyde-derivates and usage in hair
dyes)

IT 359865-88-6P 359865-89-7P 359865-90-0P

359865-91-1P 359865-92-2P 359865-93-3P

359865-94-4P 359865-95-5P 359865-96-6P

359865-97-7P 359865-98-8P 359865-99-9P

359866-00-5P 359866-01-6P 359866-02-7P

359866-03-8P 359866-04-9P 359866-06-1P

359866-07-2P 359866-08-3P 359866-09-4P

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359866-13-0P 359866-14-1P 359866-15-2P

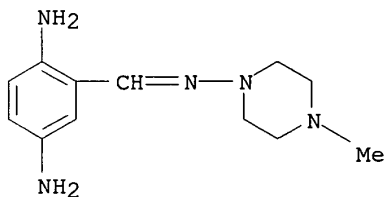
359866-16-3P 359866-17-4P 359866-20-9P

359866-22-1P 359866-24-3P 360067-94-3P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation); USES (Uses)

(prepn. of 2,5-diamino-benzaldehyde-derivates and usage in hair
dyes)

- IT 54-85-3, Isonicotinic acid hydrazide 75-04-7, Ethylamine, reactions
80-17-1, Benzene sulfonic acid hydrazide 100-63-0, Phenylhydrazine
368-78-5, 3-Trifluoromethyl phenylhydrazine 536-40-3, 4-Chlorobenzoic
acid hydrazide 536-89-0, m-Tolylhydrazine 537-47-3,
4-Phenylsemicarbazide 553-53-7, Nicotinic acid hydrazide 606-26-8,
2-Nitro benzoic acid hydrazide 613-94-5, Benzoic acid hydrazide
618-40-6, N-Methyl-N-phenylhydrazine 636-97-5, 4-Nitro benzoic acid
hydrazide 637-80-9, Hydrazineacetic acid ethylester 936-02-7,
2-Hydroxy benzoic acid hydrazide 1068-57-1, Acetic acid hydrazide
1576-35-8, Toluene-4-sulfonic acid hydrazide 2213-43-6,
Piperidine-1-amine 2361-27-5, Thiophene-2-carboxylic acid hydrazide
3326-71-4, Furan-2-carboxylic acid hydrazide 3619-22-5, 4-Methyl benzoic
acid hydrazide 4114-31-2, Hydrazinecarboxylic acid ethyl ester
4319-49-7, Morpholine-4-amine 5351-23-5, 4-Hydroxybenzoic acid hydrazide
5351-69-9, 4-Phenylthiosemicarbazide 5814-05-1, 2-Chlorobenzoic acid
hydrazide 6304-39-8, Caprylic acid hydrazide 13431-34-0,
4-Ethylthiosemicarbazide 21185-13-7, 1-Methylthiosemicarbazide
24424-99-5, Di-tert-butyl-dicarbonate 60075-23-2, (3,4-Dimethoxyphenyl)
acetic acid hydrazide 97108-50-4, 2,5-Difluorophenylhydrazine
187035-29-6, 2-Methoxymethyl-pyrrolidin-1-amine 244104-66-3
359866-37-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of 2,5-diamino-benzaldehyde-derivates and usage in **hair**
dyes)
- IT 244104-65-2P 325953-36-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. of 2,5-diamino-benzaldehyde-derivates and usage in **hair**
dyes)
- IT **359866-18-5P**
RL: BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic
preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant
or reagent); USES (Uses)
(prepn. of 2,5-diamino-benzaldehyde-derivates and usage in **hair**
dyes)
- RN 359866-18-5 HCAPLUS
CN 1,4-Benzenediamine, 2-[[4-methyl-1-piperazinyl]imino]methyl]- (9CI) (CA
INDEX NAME)



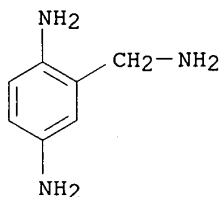
L26 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:594358 HCAPLUS
DN 135:185186
TI **Hair** dye formulations containing 1-(3'-aminopropoxy)-2,4-
diaminobenzene and developers
PA Wella A.-g., Germany
SO Ger. Gebrauchsmusterschrift, 29 pp.

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

CODEN: GGXXFR
 DT Patent
 LA German
 IC ICM A61K007-13
 CC 62-3 (Essential Oils and Cosmetics)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20107481	U1	20010816	DE 2001-20107481	20010502
PRAI	DE 2001-20107481		20010502		
OS	MARPAT 135:185186				
AB	Hair dye formulations contain a developer and coupler combination. The coupler substance can be 1-(3'-aminopropoxy)-2,4-diaminobenzene and/or its salt, and the developer is selected from compds. such as a p-phenylenediamine, a 4,5-diamino-1H-pyrazole, or a 4-aminophenol. Thus, 1-(3'-aminopropoxy)-2,4-diaminobenzene-3HCl was prepd. by the redn. of N-[2-(3'-aminopropoxy)-5-nitrophenyl]acetamide in the presence of palladium-charcoal and acidification with HCl. A hair dye formulation contained the above compd. 0.77, EtOH 10.00, 28% soln. of Na lauryl ether sulfate 10.00, 25% aq. soln. of NH3 10.00, ascorbic acid 0.30, 3-methyl-4-aminophenol 0.31 (developer) and water to 100 g. The formulation imparted a purple-red color to the hair .				
ST	aminopropoxydiaminobenzene hair dye developer; diaminobenzene aminopropoxy hair dye developer; aminobenzene aminopropoxy hair dye developer				
IT	Phenols, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (amino; hair dye formulations contg. aminopropoxydiaminobenzene and developers)				
IT	Amines, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (diamines, arom.; hair dye formulations contg. aminopropoxydiaminobenzene and developers)				
IT	Hair preparations (dyes; hair dye formulations contg. aminopropoxydiaminobenzene and developers)				
IT	Phenols, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (hair dye formulations contg. aminopropoxydiaminobenzene and developers)				
IT	Amines, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (phenolic; hair dye formulations contg. aminopropoxydiaminobenzene and developers)				
IT	90-15-3, 1-Naphthalenol 95-88-5 100-01-6, biological studies 108-46-3, 1,3-Benzenediol, biological studies 123-30-8 533-31-3, 1,3-Benzodioxol-5-ol 591-27-5 608-25-3 615-50-9 1004-74-6, Pyrimidinetetramine 2835-95-2 2835-96-3 2835-98-5 2835-99-6 5392-28-9 5697-02-9 6358-09-4 19434-42-5 20055-01-0 26455-21-0 28365-08-4 45514-38-3 54381-16-7 70643-20-8 73793-79-0 73793-80-3 79352-72-0 81329-90-0 83732-72-3 84540-50-1 93841-24-8 93841-25-9 96886-30-5 104333-09-7 109942-17-8, [1,1'-Biphenyl]-2,5-diamine 126335-43-1 131311-66-5 131657-78-8 132026-22-3 132026-42-7 155601-16-4 155601-17-5 155601-30-2				

157469-54-0 157469-73-3 168202-61-7 173994-78-0 217311-43-8
220264-58-4 232284-09-2 244104-61-8 244104-62-9 246244-41-7
306959-12-6 329320-36-7 337906-36-2 337906-38-4 344904-47-8
349649-41-8 349649-42-9 349649-43-0 349649-44-1 **349649-46-3**
354762-87-1 354762-88-2 354807-04-8
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(hair dye formulations contg. aminopropoxydiaminobenzene and
developers)
IT 76214-09-0P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(hair dye formulations contg. aminopropoxydiaminobenzene and
developers)
IT 76214-07-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(hair dye formulations contg. aminopropoxydiaminobenzene and
developers)
IT **349649-46-3**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(hair dye formulations contg. aminopropoxydiaminobenzene and
developers)
RN 349649-46-3 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)-, dihydrochloride (9CI) (CA INDEX
NAME)



● 2 HCl

L26 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:563780 HCAPLUS
DN 135:138694
TI Oxidation bases with a guanidine chain, process for their preparation,
their use for oxidation dyeing of **keratinous** fibers, dyeing
compositions and dyeing processes
IN Bordier, Thierry; Philippe, Michel
PA L'Oreal S.A., Fr.
SO Eur. Pat. Appl., 14 pp.
CODEN: EPXXDW
DT Patent
LA French
IC ICM C07C281-16
ICS C07C281-18; A61K007-13
CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

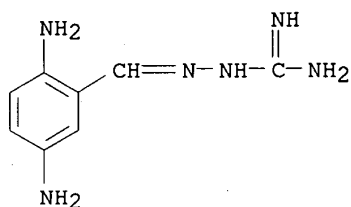
Sensitizers)

Section cross-reference(s): 40, 62

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1120405	A2	20010801	EP 2001-400112	20010116
	EP 1120405	A3	20021127		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	FR 2804428	A1	20010803	FR 2000-1055	20000127
	FR 2804428	B1	20020322		
	JP 2001240587	A2	20010904	JP 2001-18269	20010126
	US 2001034913	A1	20011101	US 2001-770471	20010129
PRAI	FR 2000-1055	A	20000127		
OS	CASREACT 135:138694; MARPAT 135:138694				
AB	The bases useful for dyeing keratinous fibers and esp. human hairs, are benzene compds. bearing guanidine groups such as C6H2(Z)(X1)(X2)AN:C(NH2)2 (X1, X2 = OH, NHR1, NR1R2 provided that X1 and X2 are not OH group at the same time; R1, R2 = H, C1-8 alkyl, C1-8 monohydroxyalkyl, C2-8 polyhydroxyalkyl, C2-8 aminoalkyl, C1-4 monoalkyl-C1-4 aminoalkyl, etc.; A = divalent linking groups of -CH:N- or -CH2NH-; Z = H, halogen, other substituents, etc.) or their acid salts. Thus, mixing a dissoln. of 9 g 2-hydroxy-5-nitrobenzaldehyde in 200 mL EtOH with 5.95 g aminoguanidine hydrochloride and 7.6 mL triethylamine and heating at 45.degree. for 3 h gave 2-hydroxy-5-nitrobenzylideneaminoguanidine monohydrate which was converted into a 5-amino-2-hydroxybenzylideneaminoguanidine dihydrochloride salt by nitro group redn. and salt forming with HCl soln.				
ST	oxidn dyeing keratinous fiber hydroxyaminobenzylidene aminoguanidine; hair dyeing aminohydroxybenzylidene aminoguanidine hydrochloride				
IT	Dyes (basic; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of keratinous fibers, dyeing compns. and dyeing processes)				
IT	Hair (human; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of keratinous fibers, dyeing compns. and dyeing processes)				
IT	Synthetic fibers RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process) (keratin ; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of keratinous fibers, dyeing compns. and dyeing processes)				
IT	352230-03-6P	352230-04-7P	352230-05-8P	352230-06-9P	
	352230-07-0P	352230-08-1P	352230-09-2P	352230-10-5P	352230-11-6P
	352230-12-7P	352230-13-8P	352230-14-9P	352230-15-0P	
	RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (basic dye; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of keratinous fibers, dyeing compns. and dyeing processes)				
IT	108-46-3, 1,3-Dihydroxybenzene, reactions 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 26021-57-8, 6-Hydroxybenzomorpholine 55302-96-0, 5-N-(.beta.-Hydroxyethyl)amino-2-methylphenol 66422-95-5 RL: RCT (Reactant); RACT (Reactant or reagent)				

- (coupler; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of **keratinous** fibers, dyeing compns. and dyeing processes)
- IT 23817-65-4P 290839-31-5P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of **keratinous** fibers, dyeing compns. and dyeing processes)
- IT 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 1937-19-5, Aminoguanidine hydrochloride 42454-06-8, 5-Hydroxy-2-nitrobenzaldehyde
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of **keratinous** fibers, dyeing compns. and dyeing processes)
- IT 352230-05-8P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (basic dye; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of **keratinous** fibers, dyeing compns. and dyeing processes)
- RN 352230-05-8 HCAPLUS
 CN Hydrazinecarboximidamide, 2-[(2,5-diaminophenyl)methylene]- (9CI) (CA INDEX NAME)



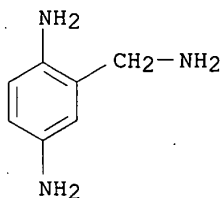
L26 ANSWER 27 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:525892 HCAPLUS
 DN 135:111700
 TI **Hair** dye compositions containing diaminophenoxypropanol and developers
 IN Braun, Hans-Juergen
 PA Wella Aktiengesellschaft, Germany
 SO PCT Int. Appl., 34 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 IC ICM A61K007-13
 CC 62-3 (Essential Oils and Cosmetics)
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001051019	A1	20010719	WO 2000-EP12847	20001216
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,				

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SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
 YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 DE 10000460 A1 20010823 DE 2000-10000460 20000107
 EP 1158954 A1 20011205 EP 2000-985176 20001216
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO
 BR 2000008850 A 20011226 BR 2000-8850 20001216
 JP 2003519646 T2 20030624 JP 2001-551443 20001216
 US 6503282 B1 20030107 US 2001-913553 20010815
 PRAI DE 2000-10000460 A 20000107
 WO 2000-EP12847 W 20001216
 OS MARPAT 135:111700
 AB A method for dyeing **hair** is based on a developing substance and
 a coupler. 3-(2,4-Diaminophenoxy)-1-propanol can be as the coupler and a
 p-phenylenediamine deriv. of general formula and/or a 4,5-diamino-1H-
 pyrazole deriv. and/or a p-aminophenol deriv. as the developing
 substances. The invention also relates to a method for oxidatively dyeing
 the **hair**. Thus, a **hair** dye formulation contained EtOH
 100, 28% soln. of sodium lauryl ether sulfate 10.00, 25% aq. NH3 soln.
 10.00, ascorbic acid 0.30, and water to 100 g, 3-(2,4-diaminophenoxy)-1-
 propanol-2HCl 2.5 and 2-(2-hydroxyethyl)-p-phenylenediamine sulfate 2.5
 mmol.
 ST diaminophenoxypropanol coupler developer **hair** dye; propanol
 diaminophenoxy **hair** dye
 IT 90-15-3, 1-Naphthalenol 95-88-5 106-50-3, 1,4-Benzenediamine,
 biological studies 108-46-3, 1,3-Benzenediol, biological studies
 123-30-8 533-31-3, 1,3-Benzodioxol-5-ol 591-27-5 608-25-3 615-50-9
 2835-95-2 2835-98-5 2835-99-6 5697-02-9 6358-09-4 19434-42-5
 26455-21-0 28365-08-4 45514-38-3 63886-75-9 70643-20-8
 73793-79-0 73793-80-3 78661-34-4 79352-72-0 81329-90-0
 83732-72-3 83763-48-8 84540-50-1 93841-24-8 93841-25-9
 97902-51-7 104333-09-7 109942-17-8, [1,1'-Biphenyl]-2,5-diamine
 126335-43-1 131311-66-5 131657-78-8 132026-22-3 132026-42-7
 155601-16-4 155601-17-5 155601-30-2 157469-54-0 157469-73-3
 168202-61-7 173994-78-0 217311-43-8 220264-58-4 232284-09-2
 244104-61-8 246244-41-7 306959-12-6 307493-94-3 329320-36-7
 337906-36-2 337906-38-4 349649-41-8 349649-42-9 349649-43-0
 349649-44-1 349649-45-2 **349649-46-3**
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (**hair** dye compns. contg. diaminophenoxypropanol and
 developers)
 RE.CNT 6 THERE ARE 6.CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Bristol-Myers Co; 3-(2, 4-Diaminophenoxy)-1, 2-propane diol - useful as
 oxidation coupler for hair dyes
 (2) Bristol-Myers Co; RESEARCH DISCLOSURE 1980, V195(013)
 (3) Henkel Kgaa; DE 19757510 A 1999 HCAPLUS
 (4) Henkel Kgaa; WO 9929285 A 1999 HCAPLUS
 (5) Henkel Kgaa; WO 9966890 A 1999 HCAPLUS
 (6) Lim, M; US 5980584 A 1999 HCAPLUS
 IT **349649-46-3**
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (**hair** dye compns. contg. diaminophenoxypropanol and

developers)
RN 349649-46-3 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

L26 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:524685 HCAPLUS
DN 135:111699
TI **Hair** dyes containing 2-aminoalkyl-1,4-diaminobenzene derivatives
IN Chassot, Laurent; Baun, Hans-Jurgen
PA Wella Aktiengesellschaft, Germany
SO Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW

DT Patent

LA German

IC ICM C07C211-51

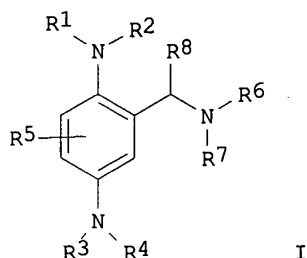
ICS A61K007-13; C07D215-38; C07D307-52; C07D295-12; C07D241-04;
C07D307-12; C07C233-36; C07C239-20; C07C215-14; C07C217-08;
C07C215-76

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1116711	A2	20010718	EP 2000-115071	20000727
	EP 1116711	A3	20010926		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001199941	A2	20010724	JP 2000-364297	20001130
	BR 2000006380	A	20010717	BR 2000-6380	20001218
PRAI	DE 1999-19961272	A	19991218		
OS	MARPAT 135:111699				
GI					

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- AB The invention concerns oxidative **hair** dyes that contain as developers 2-aminoalkyl-1,4-diaminobenzene derivs. or their physiol. compatible water sol. salts of the formula (I), where R1-R7 are defined. The **hair** dye compns. further contain another developer, e.g. 1,4-diaminobenzene, 2,5-diaminotoluene; coupling agents, e.g. 2,6-diaminopyridine; and at least one direct dye. Thus, bromo-p-phenylenediamine-HCl was converted with di-tert-Bu dicarbonate to 2,5-bis(tert-butoxycarbonylamino)bromobenzene, and then with DMF in the presence of methylolithium and butyllithium to (2-formyl-1,4-phenylene)biscarbamic acid di(tert-butyl)ester. This compd. was reacted with ethylamine and the hydrochloride of the formed substance was prepd. The obtained 2-ethylaminomethy-1,4-diamino benzene hydrochloride was used (0.0125 mmol) in a **hair** dye, that further contained: 1,3-dihydroxybenzene (coupling agent) 0.0125 mmol; potassium oleate (8% aq. soln.) 0.01 g; ammonia (22% aq. soln.) 0.01 g; ethanol 0.01 g; ascorbic acid 0.003 g; water to 1 g. The dye resulted a light blond color.
- ST aminoalkyl diaminobenzene deriv oxidative **hair** dye
- IT Dyes
(direct; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
- IT **Hair** preparations
(dyes, oxidative; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
- IT Coupling agents
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
- IT 615-50-9
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(2,5-Diaminotoluene sulfate; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
- IT 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 28365-08-4 53347-10-7
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(direct dye; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
- IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 95-70-5, 2,5-Diaminotoluene 95-88-5, 1,3-Benzenediol, 4-chloro- 99-07-0, 3-Dimethylaminophenol 106-50-3, 1,4-Diaminobenzene, biological studies 106-50-3D, 1,4-Benzenediamine, 2-aminoalkyl derivs., biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2,

2,7-Dihydroxynaphthalene 608-25-3, 1,3-Dihydroxy-2-methylbenzene
619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1953-54-4, 5-Hydroxyindole
2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1,
4-Hydroxyindole 2835-99-6, 3-Methyl-4-aminophenol 3131-52-0,
5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene
5697-02-9, 2-Methyl-1-naphthyl-acetate 6201-65-6, 2-Chloro-1,3-
dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline
6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4
16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-
1,4(2H)benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)benzoxazine
26455-21-0, N-(3-Dimethylamino)phenylurea 28020-38-4,
2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline
39489-79-7, 5-Amino-2,4-dichloro-phenol 53222-92-7, 3-Amino-2-
methylphenol 54381-16-7 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-
methylphenol 56216-28-5, 3,5-Diamino-2,6-dimethoxypyridine-
dihydrochloride 61693-42-3, 3-Amino-2,4-dichloro-phenol 70643-19-5,
2,4-Diamino-1-(2-hydroxyethoxy)benzene 70643-20-8 71500-41-9
71500-42-0 74918-21-1, 1,3-Bis(2,4-Diaminophenoxy)propane-
tetrahydrochloride 76045-64-2 78661-33-3 80592-80-9 80592-81-0
81329-90-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-
hydroxyethyl)amino]anisole 83763-48-8 84540-48-7 84540-50-1,
3-Amino-2-chloro-6-methylphenol 86817-42-7, 2-(4-Amino-2-
hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-
(methylamino)pyridine 93841-24-8, 2-(2,5-Diaminophenyl)ethanol
93841-25-9 94082-77-6 104752-50-3 104752-51-4 110102-86-8,
5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-
dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene
122455-85-0 122481-67-8 135043-64-0, 4-Amino-2-aminomethylphenol-
dihydrochloride 137290-78-9, 5-Amino-4-methoxy-2-methylphenol
139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2,
1,3-Benzenediamine, 4-ethoxy-6-methyl- 141614-05-3, 2,4-Diamino-1-(2-
hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-
methylbenzene 142082-56-2 146658-65-3 149330-25-6 155601-30-2
168092-23-7 207923-07-7 217311-43-8 350482-01-8 350482-02-9
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
IT 123-30-8, 4-Aminophenol 591-27-5, 3-Aminophenol
RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological
study); RACT (Reactant or reagent)
(hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
IT 350481-06-0P 350481-07-1P 350481-08-2P
350481-09-3P 350481-10-6P 350481-11-7P
350481-12-8P 350481-13-9P 350481-14-0P
350481-15-1P 350481-16-2P 350481-17-3P
350481-18-4P 350481-19-5P 350481-20-8P
350481-21-9P 350481-22-0P 350481-23-1P
350481-24-2P 350481-25-3P 350481-26-4P
350481-27-5P 350481-28-6P 350481-29-7P
350481-30-0P 350481-31-1P 350481-32-2P
350481-33-3P 350481-34-4P 350481-35-5P
350481-36-6P 350481-37-7P 350481-38-8P
350481-39-9P 350481-40-2P 350481-41-3P
350481-42-4P 350481-43-5P 350481-44-6P
350481-45-7P 350481-46-8P 350481-47-9P
350481-48-0P 350481-49-1P 350481-50-4P
350481-51-5P 350481-52-6P 350481-53-7P
350481-54-8P 350481-55-9P 350481-56-0P
350481-57-1P 350481-58-2P 350481-59-3P

350481-60-6P 350481-61-7P 350481-62-8P
350481-63-9P 350481-64-0P 350481-65-1P
350481-66-2P 350481-67-3P 350481-68-4P
350481-69-5P 350481-70-8P 350481-71-9P
350481-72-0P 350481-73-1P 350481-74-2P
350481-75-3P 350481-76-4P 350481-77-5P
350481-78-6P 350481-79-7P 350481-80-0P
350481-81-1P 350481-82-2P 350481-83-3P
350481-84-4P 350481-85-5P 350481-86-6P
350481-87-7P 350481-88-8P 350481-89-9P
350481-90-2P 350481-91-3P 350481-92-4P
350481-93-5P 350481-94-6P 350481-95-7P
350481-96-8P 350481-99-1P 350482-00-7P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);
BIOL (Biological study); PREP (Preparation)

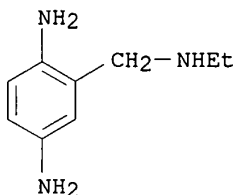
(hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 59-51-8, Methionine 62-53-3, Aniline, reactions 75-04-7, Ethylamine,
reactions 75-31-0, Isopropylamine, reactions 95-85-2,
4-Chloro-2-aminophenol 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 98-03-3,
Thiophene-2-carbaldehyde 99-57-0, 2-Amino-4-nitrophenol 99-98-9,
4-Amino-N,N-dimethylaniline 100-52-7, Benzaldehyde, reactions
104-86-9, 4-Chlorobenzylamine 106-47-8, 4-Chloroaniline, reactions
106-49-0, 4-Methylaniline, reactions 107-10-8, Propylamine, reactions
107-11-9, Allylamine 108-00-9, 2-Dimethylamino ethylamine 109-01-3
109-55-7, 3-Dimethylamino propylamine 109-83-1, 2-Methylamino ethanol
109-85-3, 2-Methoxy ethylamine 110-58-7, Pentylamine 110-73-6,
2-Ethylamino-ethanol 110-91-8, Morpholine, reactions 111-42-2,
Diethanolamine, reactions 120-57-0, 3,4-Methylenedioxybenzaldehyde
123-08-0, 4-Hydroxybenzaldehyde 123-72-8, Butyraldehyde 123-75-1,
Pyrrolidine, reactions 364-73-8, Benzene, 4-bromo-1-fluoro-2-nitro-
364-74-9, 1,4-Difluoro-2-nitrobenzene 364-76-1 437-83-2,
3-Fluoro-2-methoxy aniline 446-35-5, 1,3-Difluoro-4-nitrobenzene
455-14-1, 4-Trifluoromethyl aniline 498-63-5, Prolinol 500-22-1,
Pyridine-3-carbaldehyde 536-21-0, 1-(3-Hydroxyphenyl)-2-aminoethanol
536-90-3, 3-Methoxyaniline 555-16-8, 4-Nitrobenzaldehyde, reactions
579-72-6, 2-Dimethylaminobenzaldehyde 587-04-2, 3-Chlorobenzaldehyde
590-86-3, 3-Methylbutyraldehyde 609-36-9, Proline 616-30-8,
3-Amino-1,2-propane diol 617-45-8, Aspartic acid 617-89-0,
Furfurylamine 765-30-0, Cyclopropylamine 872-85-5,
Pyridine-4-carbaldehyde 1117-97-1, O,N-Dimethyl-hydroxylamine
1121-60-4, 2-Pyridinecarboxaldehyde 1493-27-2, 1-Fluoro-2-nitrobenzene
2038-03-1, 4-Morpholineethanamine 2043-61-0, Cyclohexane carbaldehyde
2454-37-7, 3-(1-Hydroxyethyl)-aniline 2516-47-4, Aminomethyl
cyclopropane 2812-47-7, Prolinamide 2835-95-2, 3-Amino-6-methylphenol
3731-51-9, 2-Picolylamine 3731-53-1, 4-Picolylamine 4214-76-0,
2-Amino-5-nitropyridine 4795-29-3, Tetrahydrofurfurylamine 5036-48-6,
1-(3-Aminopropyl)imidazole 5382-16-1, 4-Hydroxypiperidine 5616-32-0,
Methylaminoacetonitrile 6168-72-5, 2-Aminopropanol 6291-85-6,
3-Ethoxypropylamine 6315-89-5, 3,4-Dimethoxy aniline 6859-99-0,
3-Hydroxypiperidine 6921-22-8 7304-32-7, 2-Fluoro-5-nitro benzoic acid
7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidone 13325-10-5, 4-Aminobutanol
14268-66-7, 3,4-Methylene dioxylaniline 24424-99-5, Di-tert-butyl
dicarbonate 25739-59-7 35303-76-5, 4-(2-Aminoethyl)-benzenesulfonamide
40499-83-0, 3-Hydroxypyrrolidine 51980-54-2, 4-Pyrrolidino benzaldehyde
68621-88-5 71026-66-9 244104-66-3 325953-40-0 325953-41-1
325953-45-5 325953-46-6 325953-48-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 244104-65-2P 325953-36-4P 350481-97-9P 350481-98-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
 IT **350481-06-0P**
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);
 BIOL (Biological study); PREP (Preparation)
 (hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
 RN 350481-06-0 HCAPLUS
 CN 1,4-Benzenediamine, 2-[(ethylamino)methyl]-, hydrochloride (9CI) (CA
 INDEX NAME)



●x HCl

L26 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:283751 HCAPLUS
 DN 134:300614
 TI Direct hair dyes containing hydroxyanthraquinones
 IN Rose, David; Hoeffkes, Horst; Meinigke, Bernd
 PA Henkel Kommanditgesellschaft auf Aktien, Germany
 SO PCT Int. Appl., 26 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 IC ICM A61K007-13
 CC 62-3 (Essential Oils and Cosmetics)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001026615	A2	20010419	WO 2000-EP9684	20001004
	WO 2001026615	A3	20011108		
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19949034	A1	20010419	DE 1999-19949034	19991012
	EP 1231889	A2	20020821	EP 2000-972674	20001004
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
	JP 2003511401	T2	20030325	JP 2001-529406	20001004
PRAI	DE 1999-19949034	A	19991012		
	WO 2000-EP9684	W	20001004		
OS	MARPAT 134:300614				
AB	Coloring and toning agents for human hair, comprise at least 1 hydroxyanthraquinone deriv. as a direct dye, in a cosmetically acceptable				

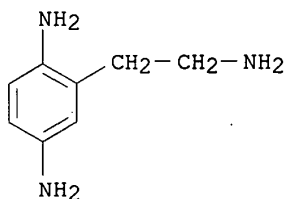
KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

- vehicle. The inventive agents permit **hair** coloring with outstanding fastness. Thus, a **hair** cream contained cetearyl alc. 1.00, fatty alc. mixt. based on coconut oil 1.00, Akypo RLM45N 1.10, propylparaben 0.05, methylparaben 0.15, and water 70.00 g. The 2nd part of the formulation comprised ammonium sulfate 1.00, direct dye of the invention 1.00, 25% NH₃ soln. to pH 9.0, and water 10.00 g. The 2 parts were mixed to give a **hair** dye formulation.
- ST hydroxyanthraquinone **hair** dye phenol; anthraquinone **hair** dye phenol
- IT Phenols, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (amino; direct **hair** dyes contg. hydroxyanthraquinones)
- IT Polyelectrolytes
 (anionic; direct **hair** dyes contg. hydroxyanthraquinones)
- IT Polyelectrolytes
 (cationic; direct **hair** dyes contg. hydroxyanthraquinones)
- IT Anthraquinone dyes
 Surfactants
 (direct **hair** dyes contg. hydroxyanthraquinones)
- IT Phenols, biological studies
 Polymers, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (direct **hair** dyes contg. hydroxyanthraquinones)
- IT **Hair** preparations
 (dyes, oxidative; direct **hair** dyes contg. hydroxyanthraquinones)
- IT **Hair** preparations
 (dyes; direct **hair** dyes contg. hydroxyanthraquinones)
- IT Phenols, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (naphthols; direct **hair** dyes contg. hydroxyanthraquinones)
- IT Amines, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (phenolic; direct **hair** dyes contg. hydroxyanthraquinones)
- IT 83-56-7, 1,5-Dihydroxynaphthalene 90-15-3, 1-Naphthol 95-70-5, p-Toluenediamine 95-88-5, 4-ChloroResorcinol 106-50-3, p-Phenylenediamine, biological studies 108-46-3, Resorcinol, biological studies 123-30-8, p-Aminophenol 488-87-9, 2,5-Dimethylresorcinol 504-15-4, 5-Methylresorcinol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 2-Methylresorcinol 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 2835-95-2, 5-Amino-2-methylphenol 2835-99-6, 4-Amino-3-methylphenol 16867-03-1, 2-Amino-3-hydroxypyridine 22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 79352-72-0, 2-Aminomethyl-4-aminophenol 84540-50-1, 2-Chloro-6-methyl-3-aminophenol 251450-62-1, 2,6-Dihydroxy-3,4-diaminopyridine 334884-66-1 334884-68-3 334884-70-7 334884-72-9 334884-74-1 334884-76-3 334884-78-5 334884-80-9 334884-82-1 334884-84-3 **334884-86-5**
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (direct **hair** dyes contg. hydroxyanthraquinones)
- IT **334884-86-5**
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(direct **hair** dyes contg. hydroxyanthraquinones)

RN 334884-86-5 HCAPLUS

CN 1,4-Benzenediamine, 2-(2-aminoethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:239829 HCAPLUS

DN 134:267732

TI Production of 2-(aminomethyl)-1,4-diaminobenzene and its salts and their use in oxidative **hair** dyes

IN Goettel, Otto; Pirrello, Aline; Hayoz, Andre

PA Wella A.-G., Germany

SO Ger., 16 pp.

CODEN: GWXXAW

DT Patent

LA German

IC ICM C07C209-62

ICS C07C209-36; C07C211-50; A61K007-13; D06P001-38

CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 25, 62

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19961229	C1	20010405	DE 1999-19961229	19991218
	EP 1110942	A2	20010627	EP 2000-115959	20000726
	EP 1110942	A3	20020206		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	EP 1310479	A1	20030514	EP 2003-3356	20000726
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	US 6461390	B1	20021008	US 2000-668330	20000922
	JP 2001172231	A2	20010626	JP 2000-312819	20001013
	BR 2000005918	A	20010717	BR 2000-5918	20001215
PRAI	DE 1999-19961229	A	19991218		
	EP 2000-115959	A3	20000726		
OS	CASREACT 134:267732; MARPAT 134:267732				
AB	2-(Aminomethyl)-1,4-diaminobenzene or its salts [2,5-(H ₂ N)2C ₆ H ₃ CH ₂ NH ₂ .nHX] (n = 0-3; HX = org. or inorg. acid) is obtained by first treating an 2-(acylaminomethyl)-4-nitrophenol with a haloacetamide, giving a 2-(acylaminomethyl)-4-nitrophenoxyacetamide, followed by aminolysis and redn. in the presence of HCl to the 1,4-diamino-2-(acylaminomethyl)benzene dihydrochloride, which is deacylated to 2-(aminomethyl)-1,4-diaminobenzene trihydrochloride; this may be converted to the free base (n = 0) or a salt with HX.				
ST	aminomethylphenylenediamine prodn oxidative hair dye component				

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

IT **Hair preparations**
(dyes, oxidative; prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative **hair** dyes)

IT 165120-67-2P 332097-12-8P, 2-(Acetamidomethyl)-4-nitrophenoxyacetamide
332097-13-9P, 2-(Acetamidomethyl)-1,4-diaminobenzene dihydrochloride
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative **hair** dyes)

IT 7722-84-1, Hydrogen peroxide, uses
RL: NUU (Other use, unclassified); USES (Uses)
(oxidizing agent in in oxidative **hair** dyes)

IT **67199-87-5P**, 2-(Aminomethyl)-1,4-diaminobenzene
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative **hair** dyes)

IT **332097-11-7P**, 2-(Aminomethyl)-1,4-diaminobenzene trihydrochloride
332097-14-0P, 2-(Aminomethyl)-1,4-diaminobenzene disulfate
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative **hair** dyes)

IT 79-07-2, Chloroacetamide . 5804-36-4 7647-01-0, Hydrochloric acid, reactions 7664-93-9, Sulfuric acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative **hair** dyes)

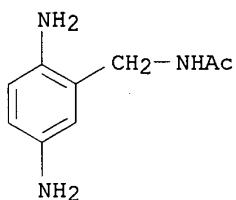
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE
(1) Anon; Die Vergleichsversuche 2000
(2) Anon; J Org Chem 1983, V48, P5140
(3) Anon; Liebigs Ann d Chem 1978, P398
(4) Anon; Synthesis 1984, P85

IT **332097-13-9P**, 2-(Acetamidomethyl)-1,4-diaminobenzene dihydrochloride
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative **hair** dyes)

RN 332097-13-9 HCAPLUS

CN Acetamide, N-[(2,5-diaminophenyl)methyl]-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

L26 ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2001:114667 HCAPLUS

DN 134:183268

TI **Hair** dye compositions containing 1,4-diaminobenzenes

IN Chassot, Laurent; Braun, Hans-Juergen

PA Wella A.-G., Germany

SO Ger., 14 pp.

CODEN: GWXXAW

DT Patent

LA German

IC ICM C07C211-51

ICS C07C211-54; C07C211-56; C07C215-68; C07C215-82; C07C217-82;

A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 25

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19961274	C1	20010215	DE 1999-19961274	19991218
	EP 1108708	A1	20010620	EP 2000-121908	20001007
	EP 1108708	B1	20030108		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	AT 230719	E	20030115	AT 2000-121908	20001007
	US 6602302	B1	20030805	US 2000-706000	20001103
	JP 2001199942	A2	20010724	JP 2000-357603	20001124
	BR 2000005896	A	20010717	BR 2000-5896	20001215
	US 2003110578	A1	20030619	US 2002-251765	20020920
PRAI	DE 1999-19961274	A	19991218		
	US 2000-706000	A1	20001103		
OS	MARPAT 134:183268				

AB 2,5-Diamino-1-aminomethylbenzene derivs. or their water-sol. salts are useful for oxidative **hair** dyeing compns. Thus, 4-(2,5-diaminobenzylamino)aniline-HCl (I) was prep'd. by the reductive coupling of 4-tert-butyloxycarbonylaminoaniline with N-(4-tert-butyloxycarbonyl-3-formylphenyl)carbamic acid tert-Bu ester and removal of the protective groups. A compn. was prep'd. contg. I 0.37, 2-amino-5-methylphenol 0.18, potassium oleate 10.0, ammonia 10.0, EtOH 10.0, ascorbic acid 0.3, and water to 100 g. The above compn. with 6% H2O2 was applied to the **hair**, and the **hair** developed medium-brown color.

ST **hair** dye oxidative diaminobenzene prepn; aminobenzene

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

hair dye oxidative prep; benzene amino hair dye
oxidative prep

IT Hair preparations
(dyes, oxidative; hair dye compns. contg. diaminobenzenes)

IT Hair preparations
(dyes; hair dye compns. contg. diaminobenzenes)

IT 90-15-3, 1-Naphthol 95-55-6, 2-Aminophenol 96-91-3,
2-Amino-4,6-dinitrophenol 106-50-3, 1,4-Diaminobenzene, biological
studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 591-27-5,
3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-50-9,
2,5-Diaminotoluene sulfate 2835-95-2, 5-Amino-2-methylphenol
2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol
6358-09-4, 2-Amino-6-chloro-4-nitrophenol 17672-22-9,
2-Amino-6-methylphenol 59320-13-7 67199-87-5 70643-20-8
74612-12-7, 2,5-Diaminotoluene hydrochloride 78886-51-8 93841-25-9
131657-78-8 325952-85-0 325952-87-2
325952-88-3 325952-89-4 325952-90-7
325952-91-8 325952-92-9 325952-93-0 325952-94-1 325952-95-2
325952-96-3 325952-97-4 325952-98-5 325952-99-6 325953-00-2
325953-01-3 325953-02-4 325953-03-5 325953-04-6
325953-05-7 325953-06-8 325953-07-9
325953-08-0 325953-09-1 325953-10-4
325953-11-5 325953-12-6 325953-13-7
325953-14-8 325953-15-9 325953-16-0
325953-17-1 325953-18-2 325953-19-3
325953-20-6 325953-21-7 325953-22-8
325953-23-9 325953-24-0 325953-25-1
325953-26-2 325953-27-3 325953-28-4
325953-29-5 325953-30-8 325953-31-9
325953-32-0 325953-33-1 325953-34-2
325953-35-3
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(hair dye compns. contg. diaminobenzenes)

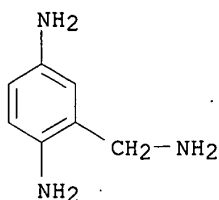
IT 325953-37-5P 325953-38-6P 325953-39-7P
325953-42-2P 325953-43-3P 325953-44-4P
325953-47-7P 325953-49-9P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(hair dye compns. contg. diaminobenzenes)

IT 99-98-9, 4-Amino-N,N-dimethylaniline 68621-88-5 71026-66-9
244104-66-3 325953-40-0 325953-41-1 325953-45-5 325953-46-6
325953-48-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(hair dye compns. contg. diaminobenzenes)

IT 244104-65-2P 325953-36-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(hair dye compns. contg. diaminobenzenes)

IT 67199-87-5
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(hair dye compns. contg. diaminobenzenes)

RN 67199-87-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 1999:77546 HCAPLUS

DN 130:158261

TI Novel oxidative **hair** dye compositions containing cationic oxidation bases

IN Genet, Alain; Lagrange, Alain

PA L'Oreal, Fr.

SO PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DT Patent

LA French

IC ICM C07D233-54

ICS A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 28

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9903836	A1	19990128	WO 1998-FR1535	19980713
	W:				
	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	FR 2766178	A1	19990122	FR 1997-9028	19970716
	FR 2766178	B1	20000317		
	AU 9887355	A1	19990210	AU 1998-87355	19980713
	EP 928289	A1	19990714	EP 1998-938745	19980713
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2000503037	T2	20000314	JP 1999-506576	19980713
PRAI	FR 1997-9028		19970716		
	WO 1998-FR1535		19980713		

OS MARPAT 130:158261

AB Novel monobenzene oxidn. bases comprise at least a cationic group being selected among the aliph. chains contg. at least a quaternized unsatd. cycle. Their use for oxidn. dyeing of **keratin** fibers, dyeing compns. contg. them and oxidn. dyeing methods using them is disclosed. Thus, 1-[2-(4-aminophenylamino)-ethyl]-3-methyl-3H-imidazol-1-ium (I) was prepd. by redn. of 3-methyl-1-[2-(4-nitrophenylamino)-ethyl]-3H-imidazol-1-ium and reaction with HCl. A **hair** dye prepn. contained I 1.036, 2-methyl-5-N-(.beta.-hydroxyethyl)aminophenol 0.543 and excipient q.s. 100 g.

ST oxidative **hair** dye cationic oxidn base
IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(C1-4-aliph.; novel oxidative **hair** dye compns. contg.
cationic oxidn. bases)
IT Bromates
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(alkali metal salts; novel oxidative **hair** dye compns. contg.
cationic oxidn. bases)
IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(aralkyl; novel oxidative **hair** dye compns. contg. cationic
oxidn. bases)
IT **Hair** preparations
(dyes, oxidative; novel oxidative **hair** dye compns. contg.
cationic oxidn. bases)
IT Glycols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(ethers; novel oxidative **hair** dye compns. contg. cationic
oxidn. bases)
IT Ethers, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(glycol; novel oxidative **hair** dye compns. contg. cationic
oxidn. bases)
IT Coupling agents
Oxidizing agents
(novel oxidative **hair** dye compns. contg. cationic oxidn.
bases)
IT Bisphenols
Glycols, biological studies
Peroxyulfates
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(novel oxidative **hair** dye compns. contg. cationic oxidn.
bases)
IT Salts, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(of peroxy acids; novel oxidative **hair** dye compns. contg.
cationic oxidn. bases)
IT Group IIIA element compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(perborates; novel oxidative **hair** dye compns. contg. cationic
oxidn. bases)
IT 56-81-5, 1,2,3-Propanetriol, biological studies 95-55-6 108-45-2D,
1,3-Benzenediamine, derivs., biological studies 108-46-3,
1,3-Benzenediol, biological studies 123-30-8 591-27-5 591-27-5D,
derivs. 7722-84-1, Hydrogen peroxide (H2O2), biological studies
55302-96-0, 2-Methyl-5-N-(.beta.-hydroxyethyl)aminophenol 66422-95-5
220159-33-1 220159-35-3 220159-36-4 220159-37-5 220159-38-6
220159-40-0 220159-41-1 220159-42-2 220159-44-4 220159-45-5
220159-46-6 220159-47-7 220159-49-9 220159-51-3

220159-54-6 220159-55-7 220159-57-9 220159-58-0 220159-59-1
220159-60-4 220159-62-6 220159-63-7

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(novel oxidative hair dye compns. contg. cationic oxidn. bases)

IT 220158-78-1P 220158-81-6P 220158-86-1P 220158-93-0P 220158-94-1P
220159-00-2P 220159-04-6P 220159-08-0P 220159-10-4P
220159-12-6P 220159-16-0P 220159-20-6P 220159-24-0P
220159-29-5P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(novel oxidative hair dye compns. contg. cationic oxidn. bases)

IT 77-78-1, Dimethylsulfate 79-04-9, Chloroacetyl chloride 96-20-8,
2-Amino-butan-1-ol 108-24-7 124-63-0, Mesyl chloride 142-28-9,
1,3-Dichloropropane 350-46-9, 1-Fluoro-4-nitrobenzene 369-34-6,
1,2-Difluoro-4-nitrobenzene 446-33-3, 4-Fluoro-2-methyl-1-nitrobenzene
455-88-9 616-47-7, 1-Methyl-1H-imidazole 2973-19-5,
2-Chloromethyl-4-nitrophenol 5036-48-6, 3-Imidazol-1-ylpropylamine
16588-02-6, 2-Chloro-5-nitro-benzonitrile 55743-71-0 55851-35-9
56932-44-6 59884-42-3 86771-81-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(novel oxidative hair dye compns. contg. cationic oxidn. bases)

IT 25351-89-7P 160950-38-9P 220158-79-2P 220158-82-7P 220158-84-9P
220158-85-0P 220158-87-2P 220158-89-4P 220158-90-7P 220158-92-9P
220158-96-3P 220158-98-5P 220159-01-3P 220159-03-5P 220159-05-7P
220159-07-9P 220159-09-1P 220159-11-5P 220159-13-7P 220159-14-8P
220159-15-9P 220159-17-1P 220159-18-2P 220159-21-7P 220159-25-1P
220159-26-2P 220159-28-4P 220159-30-8P 220159-32-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(novel oxidative hair dye compns. contg. cationic oxidn. bases)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Badische Anilin- & Soda-Fabrik Aktiengesellschaft; BE 616439 A 1962 HCAPLUS
- (2) Badische Anilin- & Soda-Fabrik Aktiengesellschaft; DE 1135589 B 1962 HCAPLUS
- (3) Bristol Myers Co; EP 0544400 A 1993 HCAPLUS
- (4) Ciba Geigy Ag; WO 9501772 A 1995 HCAPLUS
- (5) Henkel & Cie GmbH; DE 1292784 B 1969 HCAPLUS
- (6) L'Oréal; FR 1391675 A 1965
- (7) Tong, L; Journal of the American Chemical Society 1960, V82(8), P1988

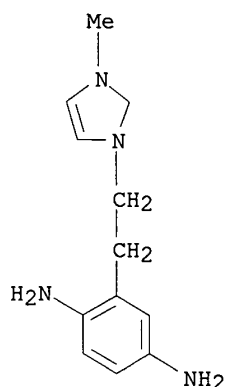
IT **220159-46-6**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(novel oxidative hair dye compns. contg. cationic oxidn. bases)

RN 220159-46-6 HCAPLUS

CN 1H-Imidazolium, 1-[2-(2,5-diaminophenyl)ethyl]-3-methyl-, chloride (9CI)
(CA INDEX NAME)



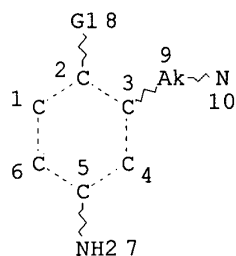
● Cl⁻

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

=> d que
L13
L18

SCR 1568
STR

more exact subset search

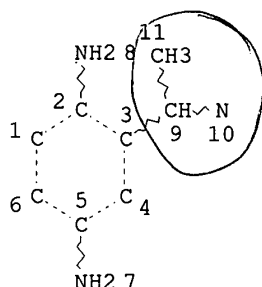


623 structures

VAR G1=OH/NH2
NODE ATTRIBUTES:
NSPEC IS RC AT 10
CONNECT IS E2 RC AT 9
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 1
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
L21 623 SEA FILE=REGISTRY SSS FUL L18 AND L13
L27 STR



25 structures

NODE ATTRIBUTES:
 NSPEC IS RC AT 10
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC 1
 NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
 L30 25 SEA FILE=REGISTRY SUB=L21 SSS FUL L27
 L31 3 SEA FILE=HCAPLUS ABB=ON L30
 L32 3 SEA FILE=HCAPLUS ABB=ON L31 AND (HAIR OR KERAT?)

=> d 132 1-3 all hitstr

3 CA references

L32 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:300263 HCAPLUS
 DN 138:308942
 TI Substituted 2-aminoalkyl-1,4-diaminobenzene compounds and oxidation dye precursor compositions containing them
 IN Chassot, Laurent; Braun, Hans-Juergen
 PA Switz.
 SO U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S. Ser. No. 692,971.
 CODEN: USXXCO
 DT Patent
 LA English
 IC ICM A61K007-13
 NCL 008405000; 008406000; 008415000
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 25
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003070241	A1	20030417	US 2002-146264	20020515
	US 6436152	B1	20020820	US 2000-692971	20001020
	US 2002189033	A1	20021219	US 2002-124149	20020417
PRAI	DE 1999-19961272	A	19991218		
	US 2000-692971	A2	20001020		

OS MARPAT 138:308942
 AB The oxidn. hair dye precursor compn., in the form of a soln., cream, emulsion or gel, contains (i) 0.005-20.0% by wt. of at least one coupler compd., and (ii) 0.005-20.0% by wt. of at least one developer

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compd., that includes at least one substituted 2-aminoalkyl-1,4-diaminobenzene compd. The compn. further comprises at least one direct dye. Prepn. of substituted 2-aminoalkyl-1,4-diaminobenzene compds. is also described. For example, 1,4-diamino-2-(1-butylaminoethyl)benzene hydrochloride developer was prepd. and formulated into an oxidn. **hair** dye precursor compn. with couplers 1,3-dihydroxybenzene, 1,3-diamino-4-(2-hydroxyethoxy)-benzene sulfate, 5-amino-2-methyl-phenol, or 1-naphthol to give bright light blond, gray-blue, purple, or gray-rose died **hair** colors, resp.

ST aminoalkyl diaminobenzene prepn **hair** dye developer; oxidative **hair** dye precursor coupler diaminobenzene developer

IT **Hair** preparations
(dyes, oxidative; oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

IT 90-15-3, 1-Naphthol 95-88-5, 1-Chloro-2,4-dihydroxybenzene 106-50-3, 1,4-Diaminobenzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 533-31-3, 3,4-Methylenedioxyphenol 608-25-3, 2-Methyl-1,3-dihydroxybenzene 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 3-Methyl-4-aminophenol 5697-02-9, 1-Acetoxy-2-methylnaphthalene 6369-59-1, 2,5-Diaminotoluene sulfate 26455-21-0, N-(3-Dimethylamino)phenylurea 56216-28-5, 3,5-Diamino-2,6-dimethoxypyridine dihydrochloride 71005-35-1 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane tetrahydrochloride 84540-50-1, 3-Amino-2-chloro-6-methylphenol 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine 94158-14-2 135043-64-0, 4-Amino-2-aminomethylphenol dihydrochloride 159621-77-9 164919-03-3 217311-43-8, 2,4-Diamino-5-fluorotoluene sulfate 282542-32-9 350482-01-8 350482-02-9, 5-Amino-4-fluoro-2-methylphenol sulfate 364343-79-3
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

IT 123-30-8, 4-Aminophenol 591-27-5, 3-Aminophenol
RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(oxidative **hair** dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

IT 350481-07-1P 350481-08-2P 350481-09-3P 350481-10-6P 350481-11-7P
350481-13-9P 350481-15-1P 350481-16-2P 350481-17-3P 350481-18-4P
350481-19-5P 350481-20-8P 350481-21-9P 350481-22-0P 350481-23-1P
350481-24-2P 350481-25-3P 350481-26-4P 350481-27-5P 350481-29-7P
350481-30-0P 350481-31-1P 350481-32-2P 350481-36-6P 350481-40-2P
350481-41-3P 350481-43-5P 350481-44-6P 350481-45-7P 350481-46-8P
350481-47-9P 350481-48-0P 350481-50-4P 350481-51-5P 350481-52-6P
350481-53-7P 350481-54-8P 350481-56-0P 350481-57-1P 350481-58-2P
350481-59-3P 350481-61-7P 350481-62-8P 350481-63-9P 350481-64-0P
350481-65-1P 350481-66-2P 350481-67-3P 350481-69-5P 350481-70-8P
350481-71-9P 350481-72-0P 350481-73-1P **350481-74-2P**
350481-75-3P 350481-76-4P 350481-77-5P
350481-78-6P 350481-79-7P 350481-80-0P
350481-81-1P 350481-82-2P 350481-84-4P
350481-85-5P 350481-87-7P 350481-88-8P
350481-89-9P 350481-90-2P 350481-91-3P
350481-92-4P 350481-93-5P 350481-94-6P
350481-95-7P 350481-96-8P 350481-99-1P 350482-00-7P
510774-40-0P 510774-41-1P 510774-42-2P 510774-43-3P 510774-44-4P
510774-45-5P 510774-46-6P 510774-47-7P 510774-48-8P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological

study); PREP (Preparation); USES (Uses)
(oxidative **hair** dye precursor compns. contg. substituted
aminoalkyl diaminobenzene compds. developers)

IT 56-40-6, Glycine, reactions 62-53-3, Aniline, reactions 63-68-3,
L-Methionine, reactions 68-12-2, Dimethylformamide, reactions 70-47-3,
Asparagine, reactions 75-04-7, Ethylamine, reactions 75-31-0,
Isopropylamine, reactions 95-85-2, 4-Chloro-2-aminophenol 96-20-8,
2-Amino-1-butanol 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 98-03-3,
2-Thiophenecarboxaldehyde 99-57-0, 2-Amino-4-nitrophenol 99-98-9,
4-Amino-N,N-dimethylaniline 100-10-7, 4-Dimethylaminobenzaldehyde
100-52-7, Benzaldehyde, reactions 104-86-9, 4-Chlorobenzylamine
106-47-8, 4-Chloroaniline, reactions 106-49-0, 4-Methylaniline,
reactions 107-10-8, Propylamine, reactions 107-11-9, Allylamine
107-15-3, Ethylenediamine, reactions 108-00-9, 2-Dimethylaminoethylamine
109-01-3 109-55-7, 3-Dimethylaminopropylamine 109-83-1,
2-Methylaminoethanol 109-85-3, 2-Methoxyethylamine 110-58-7,
Pentylamine 110-73-6, 2-Ethylaminoethanol 110-91-8, Morpholine,
reactions 111-42-2, Diethanolamine, reactions 120-57-0,
3,4-Methylenedioxybenzaldehyde 123-08-0, 4-Hydroxybenzaldehyde
123-72-8, Butyraldehyde 123-75-1, Pyrrolidine, reactions 141-43-5,
Ethanamine, reactions 147-85-3, L-Proline, reactions 364-73-8,
1-Bromo-4-fluoro-3-nitrobenzene 364-74-9 364-76-1 437-83-2,
3-Fluoro-2-methoxyaniline 446-35-5 455-14-1, 4-Trifluoromethylaniline
498-62-4, 3-Thiophenecarboxaldehyde 498-63-5, Prolinol 500-22-1,
Pyridine-3-carboxaldehyde 525-72-4, 1-Methyl-6,7-dihydroxy-1,2,3,4-
tetrahydroisoquinoline 536-21-0, 1-(3-Hydroxyphenyl)-2-aminoethanol
536-90-3, 3-Methoxyaniline 555-16-8, 4-Nitrobenzaldehyde, reactions
587-04-2, 3-Chlorobenzaldehyde 590-86-3 616-30-8 617-89-0,
Furfurylamine 765-30-0, Cyclopropylamine 872-85-5,
Pyridine-4-carboxaldehyde 1001-53-2, N-Acetythylenediamine
1117-97-1, O,N-Dimethylhydroxylamine 1121-60-4, Pyridin-2-carboxaldehyde
1493-27-2, 1-Fluoro-2-nitrobenzene 2038-03-1, 4-Morpholineethanamine
2043-61-0, Cyclohexanecarboxaldehyde 2454-37-7, 3-(1-
Hydroxyethyl)aniline 2516-47-4, Aminomethylcyclopropane 2812-47-7,
Prolinamide 2835-95-2, 3-Amino-6-methylphenol 3731-51-9,
2-Picolylamine 3731-53-1, 4-Picolylamine 4214-76-0,
2-Amino-5-nitropyridine 4795-29-3, Tetrahydrofurfurylamine 5036-48-6,
1-(3-Aminopropyl)imidazole 5382-16-1, 4-Hydroxypiperidine 5616-32-0,
Methylaminoacetonitrile 6168-72-5, 2-Aminopropanol 6291-85-6,
3-Ethoxypropylamine 6315-89-5, 3,4-Dimethoxyaniline 6859-99-0,
3-Hydroxypiperidine 6921-22-8 7304-32-7, 2-Fluoro-5-nitrobenzoic acid
7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidone 13325-10-5, 4-Aminobutanol
14268-66-7, 3,4-Methylenedioxyaniline 24424-99-5, Di(tert-butyl
dicarbonate) 25739-59-7 35303-76-5, 4-(2-Aminoethyl)benzenesulfonamide
40499-83-0, 3-Hydroxypyrrolidine 51980-54-2, 4-Pyrrolidinobenzaldehyde
68621-88-5 71026-66-9 244104-65-2 325953-40-0 325953-41-1
325953-45-5 325953-46-6 325953-48-8 510774-39-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidative **hair** dye precursor compns. contg. substituted
aminoalkyl diaminobenzene compds. developers)

IT 325953-36-4P 350481-97-9P 350481-98-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(oxidative **hair** dye precursor compns. contg. substituted
aminoalkyl diaminobenzene compds. developers)

IT 350481-74-2P 350481-75-3P 350481-76-4P
350481-77-5P 350481-78-6P 350481-79-7P
350481-80-0P 350481-81-1P 350481-82-2P

350481-84-4P 350481-85-5P 350481-87-7P

350481-88-8P 350481-89-9P 350481-90-2P

350481-91-3P 350481-92-4P 350481-93-5P

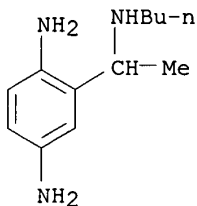
350481-94-6P 350481-95-7P 350481-96-8P

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(oxidative hair dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

RN 350481-74-2 HCAPLUS

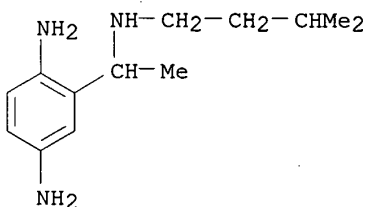
CN 1,4-Benzenediamine, 2-[1-(butylamino)ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 350481-75-3 HCAPLUS

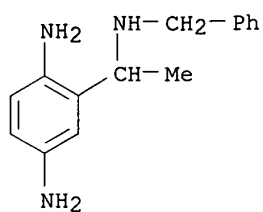
CN 1,4-Benzenediamine, 2-[1-[(3-methylbutyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 350481-76-4 HCAPLUS

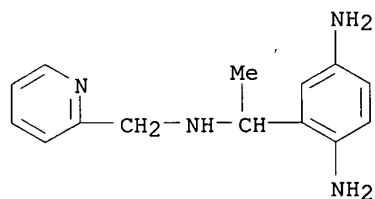
CN 1,4-Benzenediamine, 2-[1-[(phenylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 350481-77-5 HCAPLUS

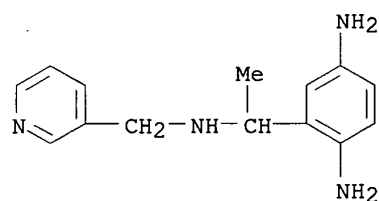
CN 1,4-Benzenediamine, 2-[1-[(2-pyridinylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



●x HCl

RN 350481-78-6 HCAPLUS

CN 1,4-Benzenediamine, 2-[1-[(3-pyridinylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)

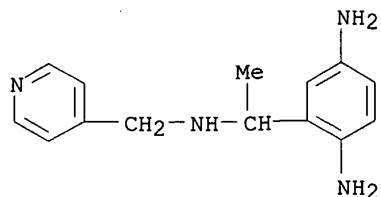


●x HCl

RN 350481-79-7 HCAPLUS

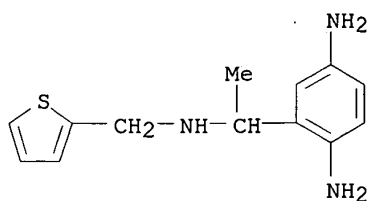
CN 1,4-Benzenediamine, 2-[1-[(4-pyridinylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)

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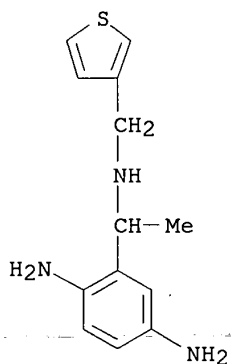
●x HCl

RN 350481-80-0 HCAPLUS

CN 1,4-Benzenediamine, 2-[1-[(2-thienylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)

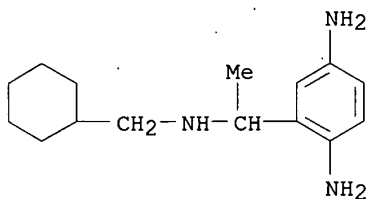
●x HCl

RN 350481-81-1 HCAPLUS

CN 1,4-Benzenediamine, 2-[1-[(3-thienylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)

●x HCl

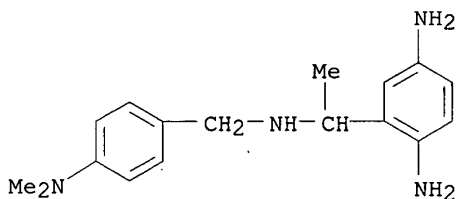
RN 350481-82-2 HCAPLUS

CN 1,4-Benzenediamine, 2-[1-[(cyclohexylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)

● x HCl

RN 350481-84-4 HCAPLUS

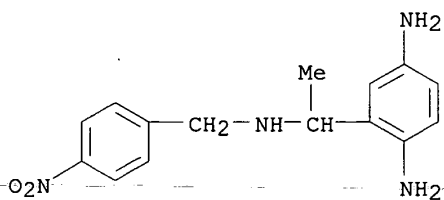
CN 1,4-Benzenediamine, 2-[1-[[[4-(dimethylamino)phenyl]methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-85-5 HCAPLUS

CN 1,4-Benzenediamine, 2-[1-[[[4-(nitrophenyl)methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)

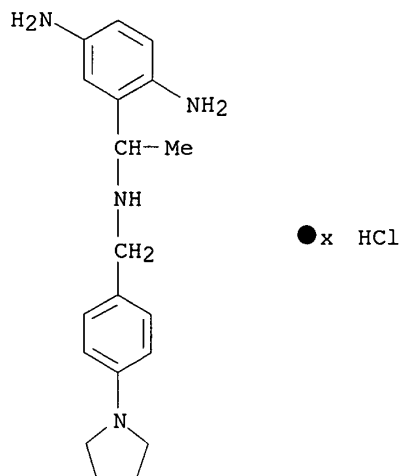


● x HCl

RN 350481-87-7 HCAPLUS

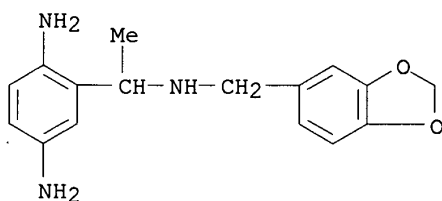
KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

CN 1,4-Benzenediamine, 2-[1-[[[4-(1-pyrrolidinyl)phenyl]methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



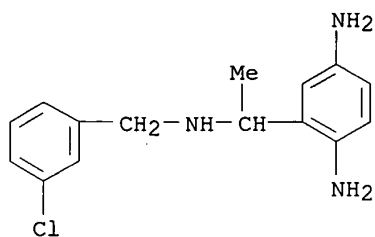
RN 350481-88-8 HCAPLUS

CN 1,4-Benzenediamine, 2-[1-[(1,3-benzodioxol-5-ylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



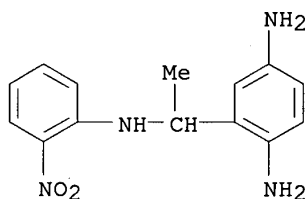
RN 350481-89-9 HCAPLUS

CN 1,4-Benzenediamine, 2-[1-[[[3-chlorophenyl]methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



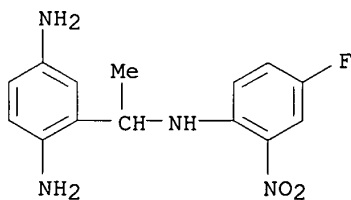
●x HCl

RN 350481-90-2 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(2-nitrophenyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



●x HCl

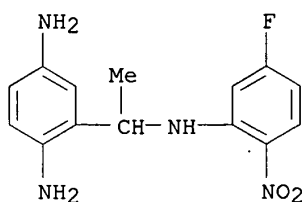
RN 350481-91-3 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(4-fluoro-2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 350481-92-4 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(5-fluoro-2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)

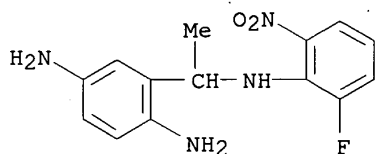
KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290



●x HCl

RN 350481-93-5 HCAPLUS

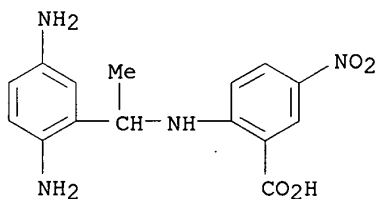
CN 1,4-Benzenediamine, 2-[[1-[(2-fluoro-6-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 350481-94-6 HCAPLUS

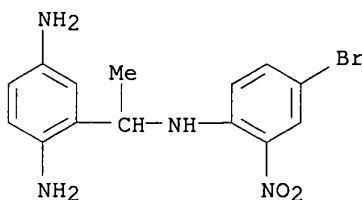
CN Benzoic acid, 2-[[1-(2,5-diaminophenyl)ethyl]amino]-5-nitro-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

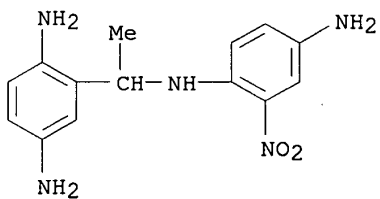
RN 350481-95-7 HCAPLUS

CN 1,4-Benzenediamine, 2-[[1-[(4-bromo-2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 350481-96-8 HCAPLUS

CN 1,4-Benzenediamine, N-[1-(2,5-diaminophenyl)ethyl]-2-nitro-, hydrochloride
(9CI) (CA INDEX NAME)

●x HCl

L32 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:574866 HCAPLUS
 DN 137:129534
 TI Primary intermediates for oxidative coloration of hair
 IN Lim, Mu-Ill; Pan, Yuh-guo
 PA Clairol Incorporated, USA
 SO PCT Int. Appl., 52 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A61K
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 25

FAN.CNT 1

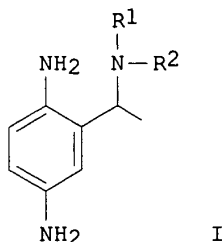
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002058632	A2	20020801	WO 2002-US1621	20020118
WO 2002058632	A3	20030403		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
 RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,

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VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 US 2002144357 A1 20021010 US 2002-52321 20020118
 PRAI US 2001-263567P P 20010123
 OS MARPAT 137:129534
 GI

applicants



- AB Primary intermediates of **hair** coloring compns. of **hair** oxidative of **hair** are compds. of the formula [I]: where R1 and R2 are each individually selected from a hydrogen atom, a C1 to C3 alkyl group, a C1 to C5 mono or dihydroxyalkyl group; Ph or benzyl optionally substituted with an alkoxy group, or R1 and R2 together with the nitrogen atom to which they are attached form a piperazine, piperidine, imidazole, or morpholine ring.
- ST **hair** dye primary intermediate oxidn benzenediamine
- IT Oxidizing agents
 (2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)
- IT **Hair** preparations
 (dyes; 2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)
- IT 90-15-3, 1-Naphthol 95-55-6, 2-Aminophenol 95-70-5,
 2-Methylbenzene-1,4-diamine 95-88-5, 4-Chlorobenzene-1,3-diol
 106-50-3, p-Phenylenediamine, biological studies 108-46-3, Resorcinol,
 biological studies 123-30-8, 4-Aminophenol 150-75-4,
 4-Methylaminophenol 591-27-5, 3-Aminophenol 608-25-3,
 2-Methylbenzene-1,3-diol 1004-74-6, Pyrimidinetetramine 2380-86-1,
 1H-Indol-6-ol 2835-95-2, 5-Amino-2-methylphenol 2835-98-5,
 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 7469-77-4,
 2-Methyl-1-naphthol 7575-35-1 16867-03-1, 2-Aminopyridin-3-ol
 17672-22-9, 2-Amino-6-methylphenol 26021-57-8 41927-22-4,
 4-Methyl-2-phenyl-2,4-dihydro-3H-pyrazol-3-one 53222-92-7,
 3-Amino-2-methylphenol 55302-96-0, 5-(2-Hydroxyethylamino)-2-methylphenol 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol 83763-47-7
 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 94082-77-6 129697-50-3
 131311-66-5 155601-17-5 157469-54-0 220264-60-8 307493-94-3,
 3-(2,4-Diaminophenoxy)-1-propanol 329320-36-7
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)
- IT **444177-65-5P 444177-66-6P**
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological

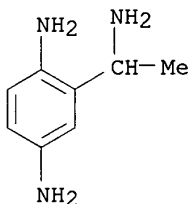
study); PREP (Preparation); USES (Uses)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)

IT 32580-41-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)

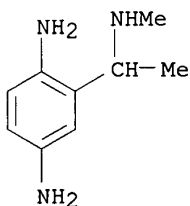
IT 444177-67-7P 444177-68-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)

IT **444177-65-5P 444177-66-6P**
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of **hair**)

RN 444177-65-5 HCAPLUS
CN 1,4-Benzenediamine, 2-(1-aminoethyl)- (9CI) (CA INDEX NAME)



RN 444177-66-6 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-(methyamino)ethyl]- (9CI) (CA INDEX NAME)



L32 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:524685 HCAPLUS
DN 135:111699
TI **Hair** dyes containing 2-aminoalkyl-1,4-diaminobenzene derivatives
IN Chassot, Laurent; Baun, Hans-Jurgen
PA Wella Aktiengesellschaft, Germany
SO Eur. Pat. Appl., 31 pp.
CODEN: EPXXDW
DT Patent
LA German
IC ICM C07C211-51
ICS A61K007-13; C07D215-38; C07D307-52; C07D295-12; C07D241-04;

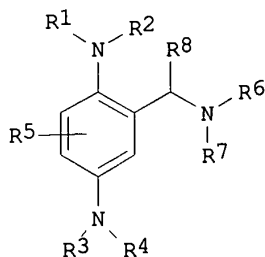
KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

C07D307-12; C07C233-36; C07C239-20; C07C215-14; C07C217-08;
C07C215-76

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1116711	A2	20010718	EP 2000-115071	20000727
	EP 1116711	A3	20010926		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001199941	A2	20010724	JP 2000-364297	20001130
	BR 2000006380	A	20010717	BR 2000-6380	20001218
PRAI	DE 1999-19961272	A	19991218		
OS	MARPAT 135:111699				
GI					



I

*Scanned
at P 101*

AB The invention concerns oxidative **hair** dyes that contain as developers 2-aminoalkyl-1,4-diaminobenzene derivs. or their physiol. compatible water sol. salts of the formula (I), where R1-R7 are defined. The **hair** dye compns. further contain another developer, e.g. 1,4-diaminobenzene, 2,5-diaminotoluene; coupling agents, e.g. 2,6-diaminopyridine; and at least one direct dye. Thus, bromo-p-phenylenediamine-HCl was converted with di-tert-Bu dicarbonate to 2,5-bis(tert-butoxycarbonylamino)bromobenzene, and then with DMF in the presence of methylolithium and butyllithium to (2-formyl-1,4-phenylene)biscarbamic acid di(tert-butyl)ester. This compd. was reacted with ethylamine and the hydrochloride of the formed substance was prepd. The obtained 2-ethylaminomethy-1,4-diamino benzene hydrochloride was used (0.0125 mmol) in a **hair** dye, that further contained: 1,3-dihydroxybenzene (coupling agent) 0.0125 mmol; potassium oleate (8% aq. soln.) 0.01 g; ammonia (22% aq. soln.) 0.01 g; ethanol 0.01 g; ascorbic acid 0.003 g; water to 1 g. The dye resulted a light blond color.

ST aminoalkyl diaminobenzene deriv oxidative **hair** dye

IT Dyes

(direct; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT **Hair** preparations

(dyes, oxidative; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT Coupling agents

(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 615-50-9

RL: BSU (Biological study, unclassified); BIOL (Biological study)

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

- (2,5-Diaminotoluene sulfate; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
- IT 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 28365-08-4 53347-10-7
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(direct dye; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
- IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylaminophenol. 92-44-4, 2,3-Dihydroxynaphthalene 95-70-5, 2,5-Diaminotoluene 95-88-5, 1,3-Benzenediol, 4-chloro- 99-07-0, 3-Dimethylaminophenol 106-50-3, 1,4-Diaminobenzene, biological studies 106-50-3D, 1,4-Benzenediamine, 2-aminoalkyl derivs., biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 608-25-3, 1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-99-6, 3-Methyl-4-aminophenol 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 2-Methyl-1-naphthyl-acetate 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)benzoxazine 26455-21-0, N-(3-Dimethylamino)phenylurea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichloro-phenol 53222-92-7, 3-Amino-2-methylphenol 54381-16-7 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 56216-28-5, 3,5-Diamino-2,6-dimethoxypyridine-dihydrochloride 61693-42-3, 3-Amino-2,4-dichloro-phenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 70643-20-8 71500-41-9 71500-42-0 74918-21-1, 1,3-Bis(2,4-Diaminophenoxy)propane-tetrahydrochloride 76045-64-2 78661-33-3 80592-80-9 80592-81-0 81329-90-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 83763-48-8 84540-48-7 84540-50-1, 3-Amino-2-chloro-6-methylphenol 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93841-25-9 94082-77-6 104752-50-3 104752-51-4 110102-86-8, 5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0 122481-67-8 135043-64-0, 4-Amino-2-aminomethylphenol-dihydrochloride 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 1,3-Benzenediamine, 4-ethoxy-6-methyl- 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2 146658-65-3 149330-25-6 155601-30-2 168092-23-7 207923-07-7 217311-43-8 350482-01-8 350482-02-9
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
- IT 123-30-8, 4-Aminophenol 591-27-5, 3-Aminophenol
RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
- IT 350481-06-0P 350481-07-1P 350481-08-2P 350481-09-3P 350481-10-6P
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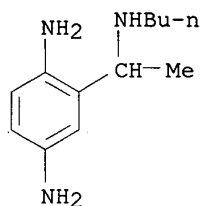
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350481-78-6P 350481-79-7P 350481-80-0P
350481-81-1P 350481-82-2P 350481-83-3P
350481-84-4P 350481-85-5P 350481-86-6P
350481-87-7P 350481-88-8P 350481-89-9P
350481-90-2P 350481-91-3P 350481-92-4P
350481-93-5P 350481-94-6P 350481-95-7P
350481-96-8P 350481-99-1P 350482-00-7P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);
BIOL (Biological study); PREP (Preparation)

(hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

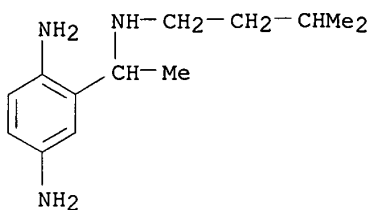
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Thiophene-2-carbaldehyde 99-57-0, 2-Amino-4-nitrophenol 99-98-9,
4-Amino-N,N-dimethylaniline 100-52-7, Benzaldehyde, reactions
104-86-9, 4-Chlorobenzylamine 106-47-8, 4-Chloroaniline, reactions
106-49-0, 4-Methylaniline, reactions 107-10-8, Propylamine, reactions
107-11-9, Allylamine 108-00-9, 2-Dimethylamino ethylamine 109-01-3
109-55-7, 3-Dimethylamino propylamine 109-83-1, 2-Methylamino ethanol
109-85-3, 2-Methoxy ethylamine 110-58-7, Pentylamine 110-73-6,
2-Ethylamino-ethanol 110-91-8, Morpholine, reactions 111-42-2,
Diethanolamine, reactions 120-57-0, 3,4-Methylenedioxybenzaldehyde
123-08-0, 4-Hydroxybenzaldehyde 123-72-8, Butyraldehyde 123-75-1,
Pyrrolidine, reactions 364-73-8, Benzene, 4-bromo-1-fluoro-2-nitro-
364-74-9, 1,4-Difluoro-2-nitrobenzene 364-76-1 437-83-2,
3-Fluoro-2-methoxy aniline 446-35-5, 1,3-Difluoro-4-nitrobenzene
455-14-1, 4-Trifluoromethyl aniline 498-63-5, Prolinol 500-22-1,
Pyridine-3-carbaldehyde 536-21-0, 1-(3-Hydroxyphenyl)-2-aminoethanol
536-90-3, 3-Methoxyaniline 555-16-8, 4-Nitrobenzaldehyde, reactions
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590-86-3, 3-Methylbutyraldehyde 609-36-9, Proline 616-30-8,
3-Amino-1,2-propane diol 617-45-8, Aspartic acid 617-89-0,
Furfurylamine 765-30-0, Cyclopropylamine 872-85-5,
Pyridine-4-carbaldehyde 1117-97-1, O,N-Dimethyl-hydroxylamine
1121-60-4, 2-Pyridinecarboxaldehyde 1493-27-2, 1-Fluoro-2-nitrobenzene
2038-03-1, 4-Morpholineethanamine 2043-61-0, Cyclohexane carbaldehyde
2454-37-7, 3-(1-Hydroxyethyl)-aniline 2516-47-4, Aminomethyl
cyclopropane 2812-47-7, Prolinamide 2835-95-2, 3-Amino-6-methylphenol
3731-51-9, 2-Picolylamine 3731-53-1, 4-Picolylamine 4214-76-0,
2-Amino-5-nitropyridine 4795-29-3, Tetrahydrofurfurylamine 5036-48-6,
1-(3-Aminopropyl)imidazole 5382-16-1, 4-Hydroxypiperidine 5616-32-0,
Methylaminoacetonitrile 6168-72-5, 2-Aminopropanol 6291-85-6,
3-Ethoxypropylamine 6315-89-5, 3,4-Dimethoxy aniline 6859-99-0,
3-Hydroxypiperidine 6921-22-8 7304-32-7, 2-Fluoro-5-nitro benzoic acid
7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidone 13325-10-5, 4-Aminobutanol

14268-66-7, 3,4-Methylene dioxylaniline 24424-99-5, Di-tert-butyl dicarbonate 25739-59-7 35303-76-5, 4-(2-Aminoethyl)-benzenesulfonamide 40499-83-0, 3-Hydroxypyrrolidine 51980-54-2, 4-Pyrrolidino benzaldehyde 68621-88-5 71026-66-9 244104-66-3 325953-40-0 325953-41-1 325953-45-5 325953-46-6 325953-48-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
IT 244104-65-2P 325953-36-4P 350481-97-9P 350481-98-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
IT 350481-74-2P 350481-75-3P 350481-76-4P
350481-77-5P 350481-78-6P 350481-79-7P
350481-80-0P 350481-81-1P 350481-82-2P
350481-83-3P 350481-84-4P 350481-85-5P
350481-86-6P 350481-87-7P 350481-88-8P
350481-89-9P 350481-90-2P 350481-91-3P
350481-92-4P 350481-93-5P 350481-94-6P
350481-95-7P 350481-96-8P
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
RN 350481-74-2 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-(butylamino)ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



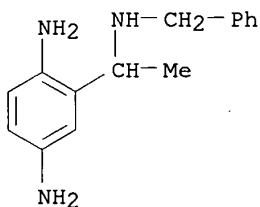
●x HCl

RN 350481-75-3 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(3-methylbutyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



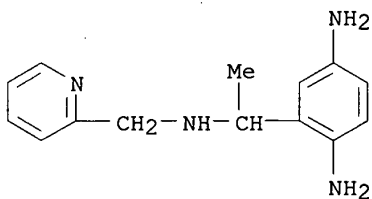
● x HCl

RN 350481-76-4 HCAPLUS

CN 1,4-Benzenediamine, 2-[1-[(phenylmethyl)amino]ethyl]-, hydrochloride (9CI)
(CA INDEX NAME)

● x HCl

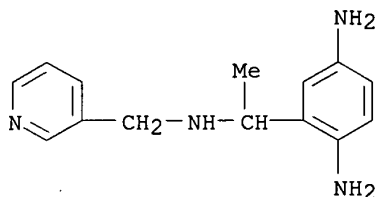
RN 350481-77-5 HCAPLUS

CN 1,4-Benzenediamine, 2-[1-[(2-pyridinylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)

● x HCl

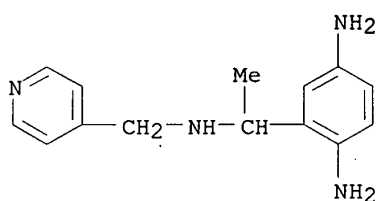
RN 350481-78-6 HCAPLUS

CN 1,4-Benzenediamine, 2-[1-[(3-pyridinylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



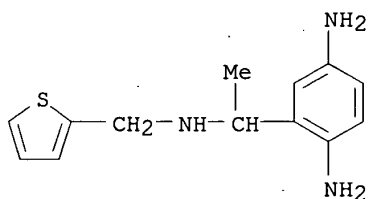
●x HCl

RN 350481-79-7 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(4-pyridinylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



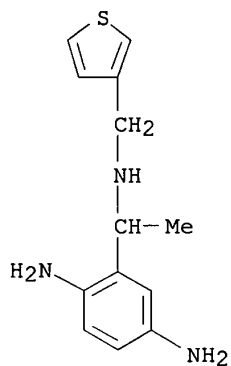
●x HCl

RN 350481-80-0 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(2-thienylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



●x HCl

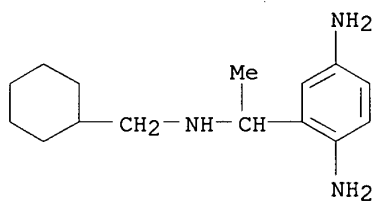
RN 350481-81-1 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(3-thienylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



●x HCl

RN 350481-82-2 HCAPLUS

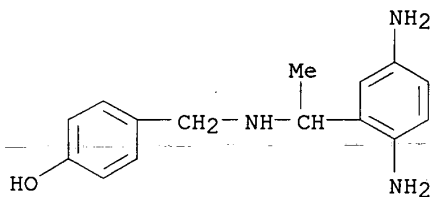
CN 1,4-Benzenediamine, 2-[1-[(cyclohexylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



●x HCl

RN 350481-83-3 HCAPLUS

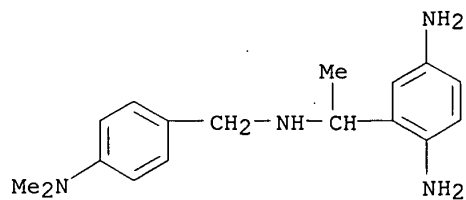
CN Phenol, 4-[[[1-(2,5-diaminophenyl)ethyl]amino]methyl]-, hydrochloride
(9CI) (CA INDEX NAME)



●x HCl

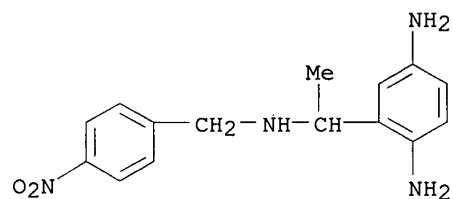
KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

RN 350481-84-4 HCAPLUS

CN 1,4-Benzenediamine, 2-[1-[[[4-(dimethylamino)phenyl]methyl]amino]ethyl]-,
hydrochloride (9CI) (CA INDEX NAME)

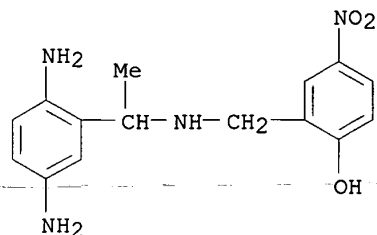
●x HCl

RN 350481-85-5 HCAPLUS

CN 1,4-Benzenediamine, 2-[1-[[[4-nitrophenyl]methyl]amino]ethyl]-,
hydrochloride (9CI) (CA INDEX NAME)

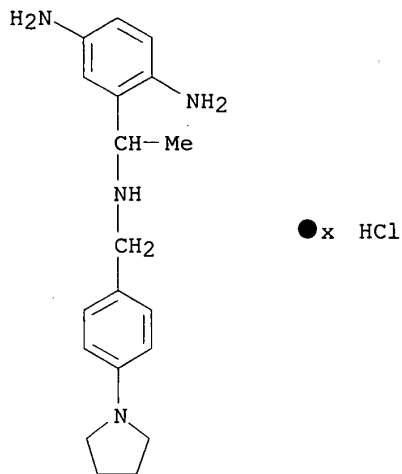
●x HCl

RN 350481-86-6 HCAPLUS

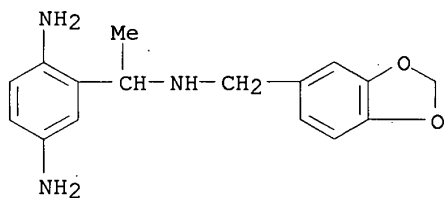
CN Phenol, 2-[[[1-(2,5-diaminophenyl)ethyl]amino]methyl]-4-nitro-,
hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 350481-87-7 HCAPLUS

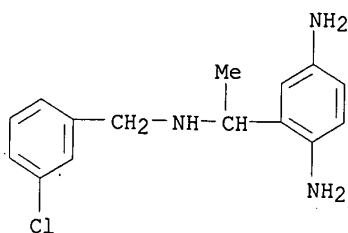
CN 1,4-Benzenediamine, 2-[1-[[[4-(1-pyrrolidinyl)phenyl]methyl]amino]ethyl]-,
hydrochloride (9CI) (CA INDEX NAME)

RN 350481-88-8 HCAPLUS

CN 1,4-Benzenediamine, 2-[1-[(1,3-benzodioxol-5-ylmethyl)amino]ethyl]-,
hydrochloride (9CI) (CA INDEX NAME)

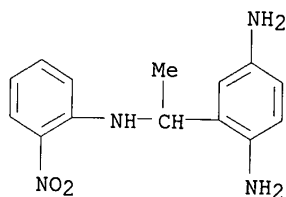
RN 350481-89-9 HCAPLUS

CN 1,4-Benzenediamine, 2-[1-[[[3-chlorophenyl]methyl]amino]ethyl]-,
hydrochloride (9CI) (CA INDEX NAME)



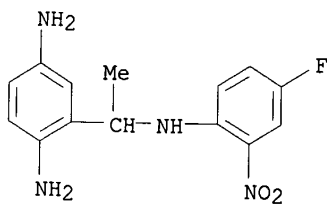
● x HCl

RN 350481-90-2 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(2-nitrophenyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



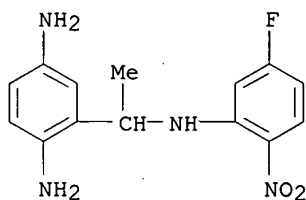
● x HCl

RN 350481-91-3 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(4-fluoro-2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

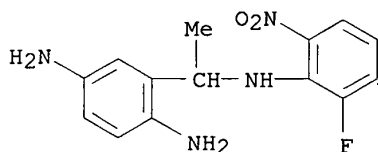
RN 350481-92-4 HCAPLUS
CN 1,4-Benzenediamine, 2-[1-[(5-fluoro-2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 350481-93-5 HCAPLUS

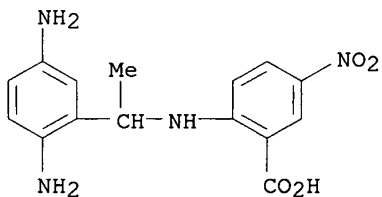
CN 1,4-Benzenediamine, 2-[1-[(2-fluoro-6-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 350481-94-6 HCAPLUS

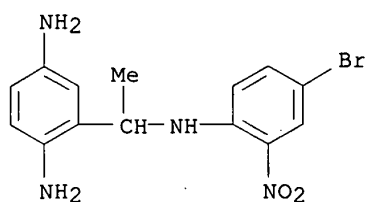
CN Benzoic acid, 2-[[1-(2,5-diaminophenyl)ethyl]amino]-5-nitro-, hydrochloride (9CI) (CA INDEX NAME)



●x HCl

RN 350481-95-7 HCAPLUS

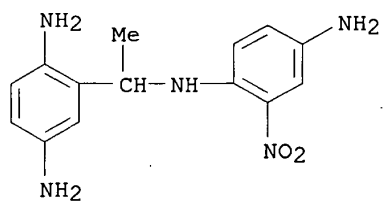
CN 1,4-Benzenediamine, 2-[1-[(4-bromo-2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-96-8 HCAPLUS

CN 1,4-Benzenediamine, N-[1-(2,5-diaminophenyl)ethyl]-2-nitro-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl